Public Utilities

Volume 65 No. 7 March 31, 1960

THE BRASS TACKS OF THE ICC ADMINISTRATIVE PROBLEM
By the Honorable Anthony F. Arpaia

« »

Gas Confusion, Unlimited
By Arthur K. Lee

« »

Alternative Tax Depreciation and the Regulated Utilities
By Carroll M. Perkins and Martin T. Farris

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The Impact of Unsound Regulatory Practices on Water Companies

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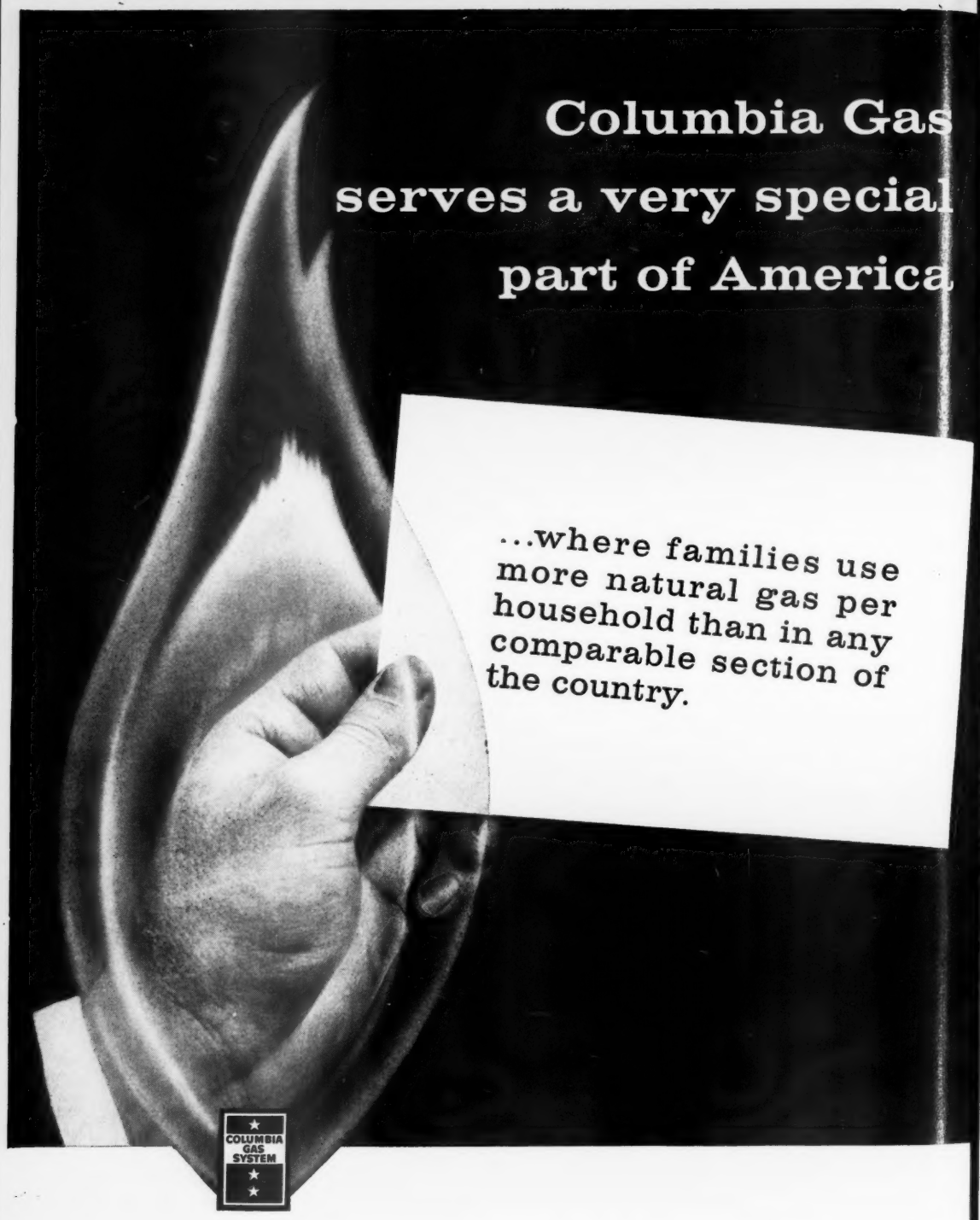
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Public Utilities FORTNIGHTLY

VOLUME 65 MARCH 31, 1960 NUMBER 7

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ubscriptions: Address correspondence to PUBLIC TILITIES FORTNIGHTLY, circulation department, 2 Pennsylvania Building, Washington 4, D. C. llow one month for change of address.

ingle copies $1.00. Annual subscription price 26 issues a year): United States and possesions, $15.00; Pan American countries, $15.00; anada, $16.00; all other countries, $17.50.

ntered as second-class matter April 29, 1915, nder the Act of March 3, 1879, at the Post Office t Baltimore, Md., December 31, 1936. Copyighted, 1960, by Public Utilities Reports, Inc. Printed in U. S. A.

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Executive, Editorial & Advertising Offices . . . . . 332 PENNSYLVANIA BLDG., WASHINGTON 4, D. C.
Publication Office . . . . . CANDLER BUILDING, BALTIMORE 2, MD.
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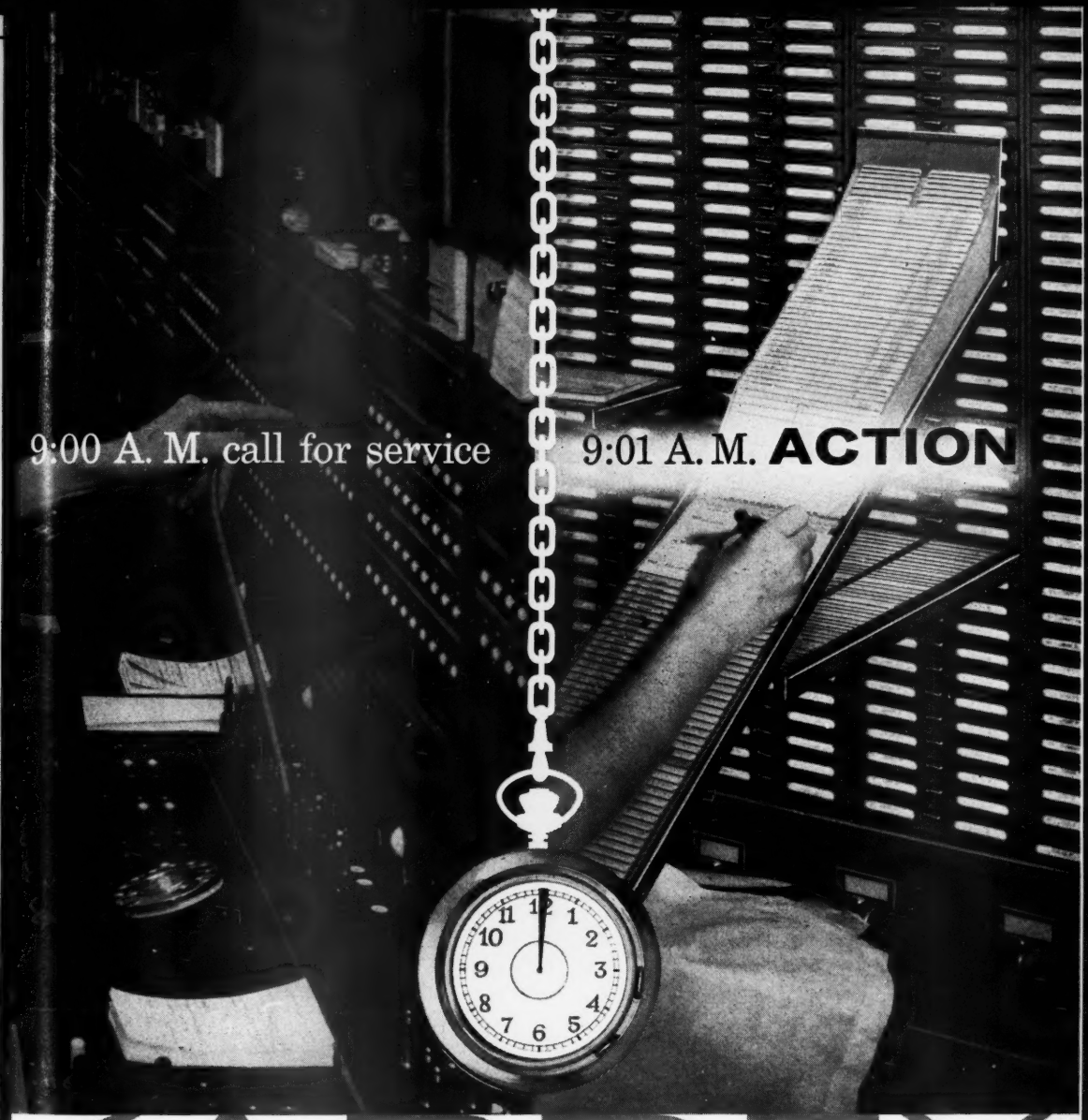

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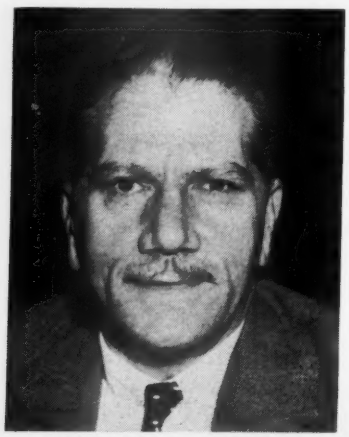
Pages with the Editors

ATTACKS on commission regulation of public utilities are certainly not a novel development. Indeed they have been recurrent ever since the beginnings of state and federal commission regulation in the latter part of the nineteenth century. In the past, however, criticism of commission regulation has almost invariably led to strengthening, then broadening, the powers of the commissions as to both the type and scope of utility businesses regulated.

BUT the recent criticism of the shortcomings of commission regulation following the investigation of the House Subcommittee on Legislative Oversight seems to introduce a novel and somewhat disturbing departure from the previous pattern of attacks on commission regulation. Now we hear suggestions about doing away with commissions altogether as an institution and substituting something else. The proposed substitutes vary from judicial to administrative types of regulation.

THE opening article in this issue comes to us from an author who is certainly qualified to deal with the subject of whether federal commissions are obsolete or should be reformed. The verdict indicated in this article is that the commissions,



ANTHONY F. ARPAIA

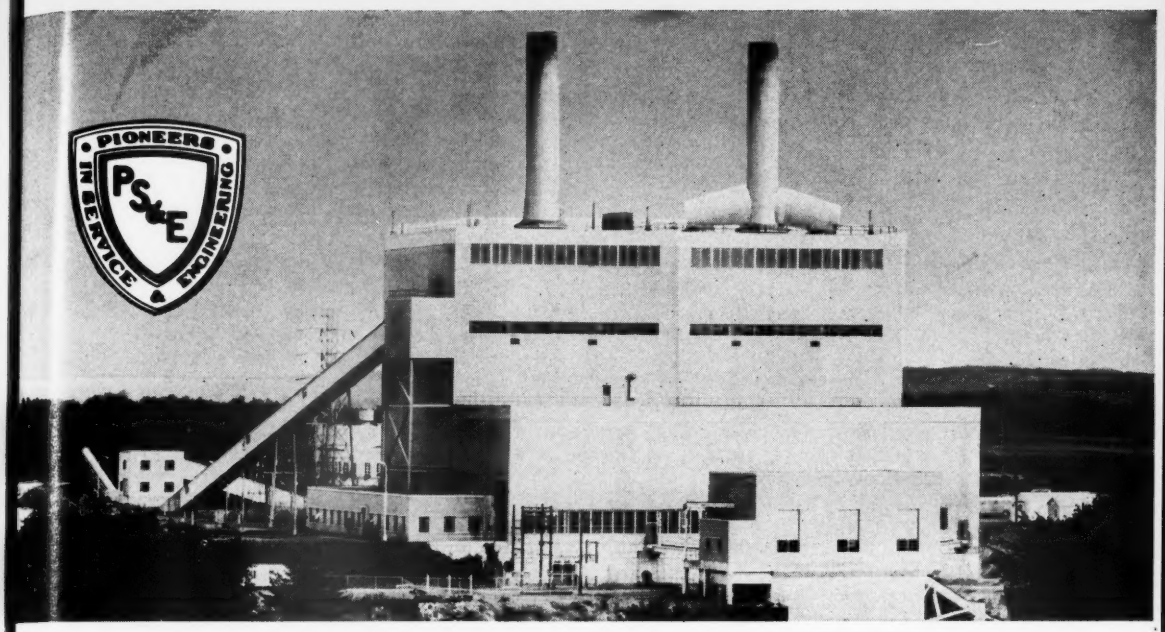
MARTIN T. FARRIS

specifically the Interstate Commerce Commission, are certainly not obsolete. On the contrary, the ICC is found to be a very valuable agency of modern government, even though it may be made more effective through certain changes proposed by the author.

THE HONORABLE ANTHONY F. ARPAIA, who gives us this article on the ICC's administrative problem, is a member and former chairman of the Interstate Commerce Commission, to which he was first appointed in 1952. A native of New Haven, Connecticut, he was educated at Yale (AB, '21; LLB, '23). He practiced law in both Connecticut and New York city until 1942, except for an interim as judge of the East Haven court from 1931 to 1933. He joined the federal government service in 1942 with the old Office of Price Administration. Following the war he resumed private practice until his appointment to the ICC.

* * * *

ARTHUR K. LEE, chairman of the board of United Cities Gas Company of Chicago, Illinois, whose article on gas producer problems appears on page 443, was businessman, banker, and state senator during the initial development of the oil and gas business in the state of Wyoming.



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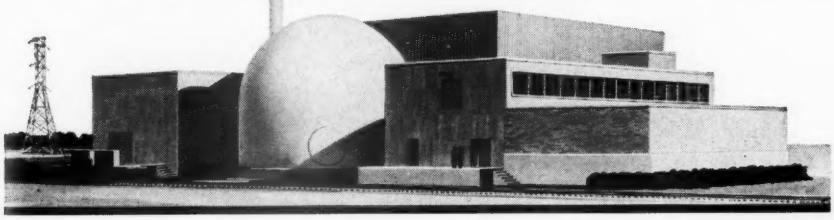

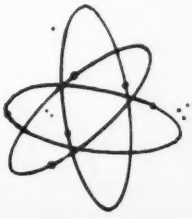

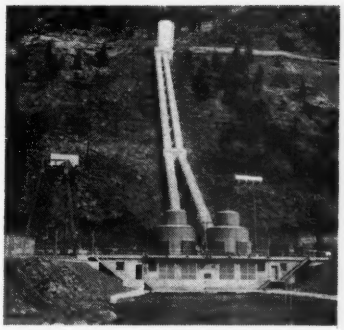

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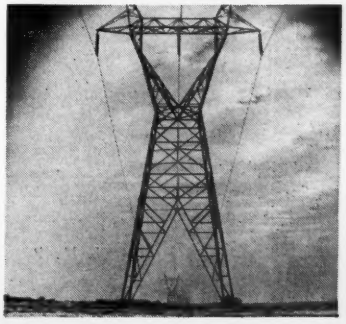

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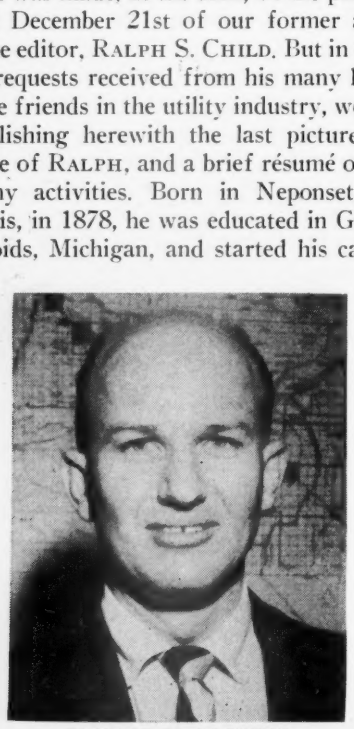
He participated in the discovery of the Hugoton gas field in Kansas. He got into Texas pipeline operations and promoted and financed pipelines supplying Colorado Springs. Following the enactment of the Natural Gas Act in 1938, MR. LEE moved to Chicago where he formed the company with which he is now connected and which operates distribution systems in a number of small cities in the Midwest and South.

* * * *

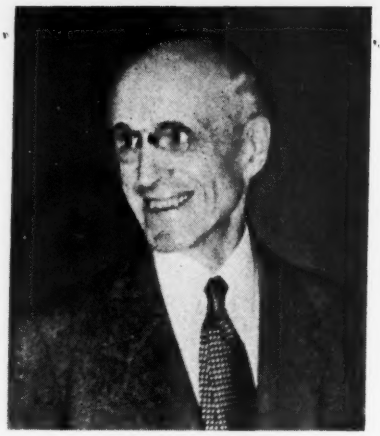
DR. MARTIN T. FARRIS, coauthor of the article on alternative tax depreciation which begins on page 456, is a native of Montana, educated at that university (PhD), and has been an associate professor of economics at Arizona State University since 1957. His coauthor, CARROLL M. PERKINS, was born in Ohio and is a graduate of the University of California at Berkeley (BS, '50). He has served with the U. S. Department of Agriculture and with the Salt River project.

* * * *

BECAUSE it has not been our usual policy to publish formal obituaries, no mention was made, at the time, of the passing last December 21st of our former associate editor, RALPH S. CHILD. But in view of requests received from his many long-time friends in the utility industry, we are publishing herewith the last picture we have of RALPH, and a brief résumé of his many activities. Born in Neponset, Illinois, in 1878, he was educated in Grand Rapids, Michigan, and started his career



CARROLL M. PERKINS



RALPH S. CHILD

there with an investment firm in 1903. By 1904 he had organized his own firm, Child, Hulswit & Co., for utility financing.

IN 1919 the reorganized Child & Co. opened its office at 60 Wall street, New York city. But two years later and for more than a decade CHILD'S service in the utility investment field was with the well-known firm of Bonbright & Co., Inc. He traveled extensively in Europe and South America. With the dissolution of the Bonbright firm, he turned to the lecture platform with a series of travel talks. In 1942 he was asked to install a personnel induction program at the government shipyard at Brunswick, Georgia. In 1944 he joined PUBLIC UTILITIES FORTNIGHTLY as an associate editor where he served until reasons of health required some curtailment of his activities in 1958. But he still remained on our staff in a corresponding capacity until his passing at Chapel Hill, North Carolina. He will always be remembered for his thoughtful, gentle, and mannerly use of his many talents—for his earnest convictions and quiet enthusiasm. The FORTNIGHTLY staff lost with his going a warm and treasured personal friendship, as well as a valued editorial associate.

THE next number of this magazine will be out April 14th.

The Editors

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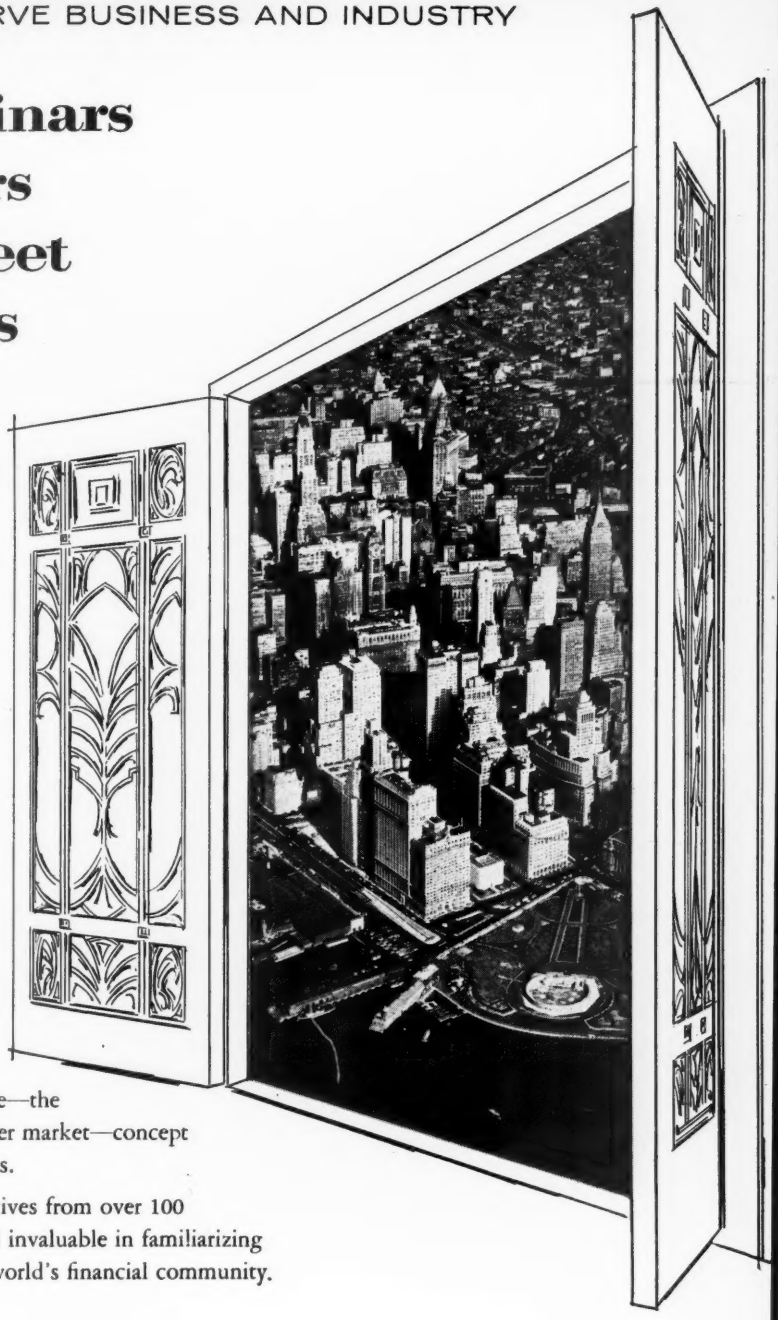
Irving seminars open the doors of Wall Street to Utilities



t One Wall Street, Irving specialists e ready with new and sound pproaches—with seminars, for xample, designed to provide the nancial insight demanded by oday's rapidly growing Utilities. In ddition to meetings with Irving pecialists, these seminars offer ontact with experts from the many reas of the Wall Street community. is these experts who actually ake the Irving seminars possible.

ere's a brief list of some of the oors Irving opens for Public tility executives during a Seminar Veek:

nside view of rating agencies—explana- on of the functions of the investment anker—operations of the stock exchange—the roker and dealer and the over-the-counter market—concept f regulation—cost-of-capital—and others.

o goes a typical week that utility executives from over 100 ompanies across the country have found invaluable in familiarizing emselves with the ins and outs of the world's financial community.

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(April 14, 1960, issue)

★

WHAT'S BEHIND THE BURNS CREEK PROJECT?

E. M. Naughton, president and general manager of the Utah Power & Light Company, has analyzed the Burns Creek hydroelectric project being undertaken by the U. S. Bureau of Reclamation. He finds that the government is here assuming a continuing utility responsibility to furnish the electric power requirements of a few preferred customers under the guise of reclamation. The project has been sponsored by the Reclamation Bureau and is the subject of two bills in the House which would authorize its construction as a federal project by the Secretary of Interior. The author further contends that the additional power to be supplied to preference customers in the area would be sold for less than the cost of production.

TACKLING THE WASHINGTON, D. C., TRANSIT PROBLEMS

The metropolitan area of Washington, D. C., presents an unusually complicated legal, regulatory, and economic problem, especially with respect to transportation, because the daily commuters are chiefly residents of Maryland and Virginia, whereas the District of Columbia is a political subdivision of the federal government. Herbert Bratter, Washington economist and author of business articles, recently interviewed Frederick Gutheim, staff director of the congressional Joint Committee on Washington Metropolitan Problems. Physically, the transportation puzzle in the nation's capital resembles the parallel headache in other city areas because it is dominated by commuters who insist on driving their own private automobiles. But the experts are discovering that rail transit is the most promising solution to the problem posed by an exploding "bedroom population," moving daily between the central city and outlying suburbs in Maryland and Virginia.

A LITTLE "SHOW SHOP" HELPS OFF-JOB SAFETY

Bell telephone companies have found, along with other business management concerns, that more people get hurt away from their work than while on the job. From the standpoint of employee disability and absenteeism, this costs the company as much if not more money than accidents on the job which can be more closely controlled by a safety program. But how can a company employer go about a safety program for employees on their own time after business hours? John Mappelbeck, author of business articles, has investigated a new safety teaching technique which one Bell management has found can be best solved with a Hollywood touch.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

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* * *

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HIGHLIGHTS OF THE YEAR...	1959
Operating Revenues amounted to *A new high — an increase of $24,523,927, or 9%*	$296,657,874
Consolidated Net Income was *Another new high — up $4,962,720, or 13%*	$43,196,965
Earnings Per Share of Common Stock (average) were *14 cents above the previous year* *On year-end shares, earnings were $1.92, up 11 cents*	$1.95
Dividends Per Share of Common Stock were *Up 10 cents over 1958*	$1.30
Construction Expenditures totaled *Largest in history of the system*	$178,665,000
Sales of Electric Energy, in kilowatt hours *A new record, up 11%*	20,965,773,000
Customers Served Directly increased to *53,673 more than in 1958*	1,539,039

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Remarkable Remarks

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—MONTAIGNE

RAYMOND L. BRUCKBERGER
Dominican priest and international economist.

"The American economic and social revolution is the only revolution in modern times to have achieved its aim."

FREDERICK BURDICK
Editor, Gist.

"Congressmen returning from their contacts with the people say they are more concerned about the arms race and real progress toward peace than any other issue. It well may prove a vital one in the approaching election campaign."

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"I . . . believe that certain factors which are fundamental to the progress of other businesses cannot be absent from ours. I mean specifically the profit incentive —the drive for financial progress—the expectation of reasonable reward."

MAURICE H. STANS
Director, United States Bureau of the Budget.

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HENRY HAZLITT
Columnist.

"Its (government's) true function to maintain peace, order, and justice; to protect life and property; to refrain from burdensome and inequitable taxation; to remove the punitive laws and deterrents that previous governments have imposed. Its function is to permit and preserve a sound currency. When it fails to do this, it must bear sole responsibility for the failure."

VICTOR A. KNOX
U. S. Representative from Michigan.

"If it is true, as many claim, that foreign trade policy is inexorably linked to broad foreign policy, then surely it is time to reassess our present trading patterns. The record shows that the United States, the world's greatest trading nation, is currently devoting most of its attention in foreign commerce to swapping manufactured products with its industrial allies—in other words, the countries that least need our help—while offering relatively few new opportunities to the lesser developed nations that need help most."

UTILITIES
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MARCH - APRIL

Thursday—31 *Pennsylvania Gas Association begins distribution meeting, King of Prussia, Pa.*	**APRIL** **Friday—1** *Maryland Utilities Association begins annual spring business meeting, Baltimore, Md.*	**Saturday—2** *American Institute of Architects will hold annual meeting, San Francisco, Cal. Apr. 18-23.* ***Advance notice.***	**Sunday—3** *Nuclear Engineering Congress begins, New York, N. Y.*
Monday—4 *Edison Electric Institute begins annual sales conference, Chicago, Ill.*	**Tuesday—5** *National Association of Broadcasters begins annual convention, Chicago, Ill.*	**Wednesday—6** *Iowa Telephone Association ends two-day annual convention, Des Moines, Iowa.*	**Thursday—7** *American Water Works Association, New York Section, ends three-day annual meeting, Binghamton, N. Y.*
Friday—8 *Florida-Georgia Gas Association begins convention, Palm Beach, Fla.*	**Saturday—9** *Nebraska Telephone Association will hold annual convention, Omaha, Neb. Apr. 19, 20.* ***Advance notice.***	**Sunday—10** *Institute of Investment Banking begins annual session, Philadelphia, Pa.*	**Monday—11** *Pacific Coast Electrical Association begins administrative services conference, Pasadena, Cal.*
Tuesday—12 *Petroleum Industry Electrical Association - Petroleum Electrical Suppliers Association begin annual convention, Kansas City, Mo.*	**Wednesday—13** *American Public Relations Association begins conference, White Sulphur Springs, W. Va.*	**Thursday—14** *Indiana Gas Association will hold meeting, French Lick, Ind. Apr. 21, 22.* ***Advance notice.***	**Friday—15** *National Sales Executives-International, Finance and Executive Committee, begins meeting, Minneapolis, Minn.*

Courtesy, Public Service Company of Oklahoma

Cat Driver Stretches 66,000 Volts

This caterpillar tractor is pulling in conductor on a new 66,000-volt electric transmission line to connect a substation in Broken Arrow with another line in Tulsa for the Public Service Company of Oklahoma.

Public Utilities
FORTNIGHTLY

VOLUME 65 MARCH 31, 1960 NUMBER 7

The Brass Tacks of the ICC Administrative Problem

By the Honorable ANTHONY F. APRAIA*
Member, Interstate Commerce Commission

Over the years the ICC has proved itself a sound arbiter of transportation problems. But today it needs a regulatory tune-up. Reason? Adjudicatory and other duties have increased enormously both in complexity and scope. Time-consuming administrative work has become incompatible with the commission's quasi-judicial and quasi-legislative functions. One solution would be the creation of a full-time administrative head within the agency.

TRANSPORTATION regulation is now, and will for some time be generally accepted as a necessary function of government. Two aspects of it are presently under official inquiry and study. First, its scope, and, secondly, its effectiveness and efficiency. In other words, the answers to two questions are being sought: How much regulation do we need, and how should it be administered?

Perhaps the two topics cannot be completely separated, but I shall confine this article to the subject of the federal regulatory machinery. As a preliminary observation, I will say that the present total cost to the taxpayers for the regulation of surface transportation is modest. Hence, assuming that government control will continue, the real question is, how can we get the most and best results for that cost?

EXPERTS in and out of government have for some time given this subject con-

*For additional personal note, see "Pages with the Editors."

siderable attention. In fact, in the last thirty years there have been 22 official investigations dealing primarily or exclusively with the *organization* of the Interstate Commerce Commission. This number does not include those now under way. In addition, there have been many independent studies by outside experts. From such sources have come numerous proposals for the reorganization of federal transportation functions. These proposals differ widely in extent and practicability. Some would go to extremes. To a few, the so-called "independent agency," in spite of what the courts have said, is extraconstitutional. They would abolish it entirely. Others belong to the standpat, negative school—they resist any change.

These extremists live in the past in varying degrees. Those who consider the independent agency as a "headless fourth branch of the government" resort, in part, to conditions prevailing during the reign of James the First of England and the eighteenth century to support their thesis. On the other hand, the standpatters give no weight to the massive economic and technological changes which have revolutionized transportation in the last quarter century.

I DO not question the sincerity of any of them. But sincerity is not the issue. Sincere men can be wrong, as history has repeatedly shown. Our concern is with reality, not with theorems; with utility, not abstractions. What we need first are the facts—a particularized analysis of the present operations. Then, and only then, can we evaluate necessary changes. Now, what are the facts?

Although the Interstate Commerce Act has seen major amendment from time to time, the commission's organizational structure has remained essentially unchanged since its formation. True, in 1952 the Senate hired an outside group of management experts who made some recommendations in what was known as the "Wolf Report." This resulted in some functional realignment of bureaus within the agency and the creation of the office of managing director, whose duties are prinicipally of the "housekeeping" type, but the commission still remained the repository of an assortment of duties and the horizontal layers of authority remained undisturbed.

Until 1935, with slightly over 100 class I railroads and several hundred short-line and switching railroads within its jurisdiction, the combination of quasi-legislative, quasi-judicial, and administrative functions in one agency was manageable. At that time transportation problems were homogeneous and limited.

A New Era Began in 1935

VAST changes began with the Motor Carrier Act of 1935. This and subsequent legislation not only added to the adjudicatory burdens, but thrust an unprecedented volume and variety of duties upon the commission.

Before motor carriers were regulated, the administrative chores—for example, those relating to safety, locomotive inspection, service, compliance, accounts, annual reports, investigations, and statistics—were incidental and closely related. The policing job was likewise limited—a railroad's operating rights were not restricted as to commodities, and its territorial authority could hardly be violated—it ran on fixed tracks between fixed points. None of the complications arising

The Administrative Step Would Not Be Irrevocable

"THOSE duties which are essentially managerial or administrative, so-called 'line functions,' can best be performed by a single administrator. They require direct action and responsibility. Therefore, some means should be found to separate them from the commission. This can be done by a vertical division of the commission into two separate bodies: one to take over the administrative job and the other to retain the quasi-judicial and quasi-legislative work. Such a plan would preserve the experience and advantages of the present system without disruption and expense; it would require minor adjustment and, even if it were imperfect, could be tried without being irrevocable. As a transitory step, the administrative operations could be assigned exclusively to one of the commissioners who could be freed of other duties."

out of ambulatory operations of motor carriers existed. These complications were made worse by certificate restrictions of territory, routes, commodities, and service. The tariff filings of railroads were few in number as compared with those now filed for 18,000 or more motor carriers of various classifications, water carriers, and freight forwarders. There were no insurance requirements for railroads. Their equipment was more standardized and there was more uniformity in safety appliances, equipment, and operations.

RAILROADS did not require extensive commission supervision over hours of service, keeping of logs, and minimum qualifications of hundred of thousands of drivers. It was not necessary to police passenger bus requirements, brokers' licenses, shippers' associations, and illegal public transportation. To add further to this list of administrative burdens, the commission became responsible for the safety of operations of millions of trucks engaged in interstate commerce, even though they are exempt from economic regulation, or are privately operated.

As a matter of fact, as of now, of the 2,286 people employed by the commission, 1,429, or 62.5 per cent, most of them in the field, are chiefly engaged in purely administrative duties which have little or no relation to the quasi-legislative and quasi-judicial functions which are, and should be, the commission's principal concern if the shipping public is to be protected and the national interest in the economic soundness of public transportation is to be preserved.

Commission Efficiency

ALTHOUGH the work of the commission is split along functional lines by bureaus, the responsibility of the commissioners at the top is not and cannot, under the present system, be so divided. Therefore, the underlying issue in the in-

vestigations and studies directed toward the improvement of efficiency of the commission, whether recognized or not, is: Is it practical and realistic for a body of eleven men to effectively manage such extensive administrative tasks and, at the same time, properly perform their adjudicatory functions?

In addition to the fact that some of these duties are somewhat incompatible, there is necessarily an inordinate drain on the time of the commissioners and diversion of attention and energy from the functions for which a commission-type organization is essentially adapted and needed. But of greater moment is the organizational monstrosity presented when eleven commissioners must somehow find the time, in between the heavy work load of deciding cases, to meet, deliberate, and agree to take action necessary to give efficiency and direction to such completely administrative operations as I have mentioned.

One might as well expect a quarterback in the huddle to get a majority vote of the eleven men on a football team before putting the ball into play. The commissioners do the best they can, but the very cumbersomeness of majority approval as applied to these purely administrative matters makes it difficult to get action at all, since everybody's business shortly becomes nobody's business, and nothing is so frustrating as the eternal hanging on of an incompleted task.

THE public and the Congress properly expect the commissioners, not staff people, to account for every commission action. The amount of time they must spend in answering mail, preparing regular and special reports, giving formal testimony on matters such as inadequate supply of cars, accidents, violations, accounting rules, safety, and administrative efficiency, etc., sometimes reaches extraordinary proportions. Commissioners are held answerable too for the action, or lack of action, of the staff wherever located or whatever its duties.

Without question, matters which involve the determination of "reasonable rates," "public convenience and necessity," "unjust discrimination," "consistency with the public interest," reorganizations, the propriety of securities' issues, and the many sections of the act which require the establishment and interpretation of statutory policy, are functions which justify the judicial type of approach and composite judgment.

To develop rules and regulations covering uniform accounting, safety, filing of reports, and related activities, however, requires information, education, consultation, and negotiation in the first instance. It is only after such methods fail to produce a rule or regulation which will serve public purposes that the true quasi-legislative function comes into play. It is then that a hearing or representations by all sides are necessary. If a new rule, or a change in a rule proposed by a bureau, is not accepted, the commission, in the capacity of an independent, impartial agency resolves the problem.

Administrative Head Needed

ONCE the rules, regulations, or standards have been set, however, the duty of administering inspection, supply of cars, compliance with insurance requirements, compliance with hours of service, maintenance of drivers' logs, inspection of safety appliances and equip-

ment, filing of reports, checking accounts, keeping of statistics, investigation of violations, and enforcement is a straight-line managerial and administrative job requiring clear-cut action. For *this* job, one-man management would be more appropriate and more effective.

Duties Have Changed Considerably

THE adjudicatory functions of the commission have become of such complexity and magnitude that they allow little time for other tasks. They were enormously increased by legislation between 1935 and 1958. The Motor Carrier Act of 1935 immediately involved a flood of processing over 80,000 "grandfather" certificates for operating authority, plus the ever-continuing stream of applications for new authority since that time.

The Transportation Policy of 1940 changed the entire theory of regulation. Until that time the function of the ICC was mainly to protect the public against unreasonable or discriminatory rates. With the regulation of competitive transportation services and the adoption of the policy, in addition to its original function, the commission was required to maintain healthy competition among carriers of all kinds while preserving the inherent advantages of each. Because of intense competition, the volume and complexity of rate, operating rights, control and merger, and other proceedings increased enormously.

A FEW statistics will illustrate the changes in the work load. To use only the most important categories of matters involving economic interest of the public and the carriers as an illustration: In 1934, there were only 61 proceedings authorizing extension of operating rights of railroads. In 1958, there were 3,895 proceedings for operating rights of all kinds, not including 3,999 applications for temporary authority. In 1934, there were 127 investigation and suspension rate cases; in 1958, there were 1,865 I&S proceedings. In 1934, there were only 18 proceedings involving the acquisition, consolidation, or control of carriers. In 1958, there were 1,425 matters of this type.

Recent legislation further increased the work load. The rollback of exempt commodities with "grandfather" rights, the redefinition of contract carriage, the jurisdiction over discontinuances of passenger services, and the government guaranty of private loans to railroads created

The Main Issue

"ALTHOUGH the work of the commission is split along functional lines by bureaus, the responsibility of the commissioners at the top is not and cannot, under the present system, be so divided. Therefore, the underlying issue in the investigations and studies directed toward the improvement of efficiency of the commission, whether recognized or not, is: Is it practical and realistic for a body of eleven men to effectively manage such extensive administrative tasks and, at the same time, properly perform their adjudicatory functions?"

another batch of matters requiring adjudication.

Some Incompatible Responsibilities

An example of the incompatibility of the position of the commission arises out of its responsibility in connection with the government guaranty of loans. The commission must, by law, determine whether an applicant railroad is eligible for a government guaranty of a loan from private sources. Whether the applicant is qualified by the standards set by Congress for such assistance is a true quasi-judicial determination.

However, experience has shown that the commission also is placed in the position of being the contracting party for the government. It must prepare, negotiate, and sign the guaranty agreement, and supervise the loan. It administers the provisions of the loan and guaranty agreement, has the power to alter and extend the loan terms, declare a default if necessary, accept the collateral, and pass upon it when default occurs. Although the situation has not yet arisen, I would assume that the lenders would expect the commission to obtain the necessary appropriation from Congress in the event of a default. These are not adjudicatory tasks.

Is it appropriate that the commission be required to fill the rôle of an interested party, when it must adjudicate matters which may vitally affect the economic interests of a railroad loan applicant during the life of the loan? Suppose, further, the railroad should wind up in bankruptcy —the commission would be required to pass on a plan of reorganization in which it, as a party participant, was responsible for the creditor status of the United States government. It is not only an inconsistent rôle but, frankly, downright uncomfortable.

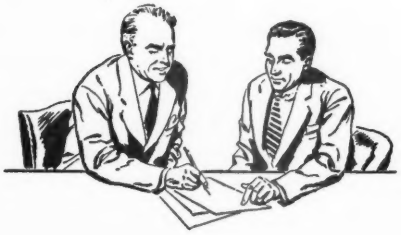
What's the Answer?

Now, what does all this mean? It means simply that the heavy demands of the commission's attention and time for purely administrative duties not only serve to impede the efficient exercise of adjudicatory functions, but that failure to distinguish between the two has given some color to the insinuation of those who would scuttle independent agencies that administrative law has degenerated into "administrative lawlessness."

Confronted as we are with this situation—what course of action should be taken?

The answer, in my judgment, will not be found in the attitude of the apologists for the status quo nor of those critics who, thinking only in terms of the strict concepts of the pure judicial process, would scrap the entire system by dividing the functions of the commission among several new agencies and courts.

The use of courts for the job of regulating transportation, in my judgment, is unworkable. Modern conditions require tools that are more flexible than detailed legislation enforced by formal judicial process. The commission, as an independent agency performing a blend of quasi-judicial, quasi-legislative functions, has become a necessary instrument of government. As such, it is characterized by flexibility, relative informality, and is inexpensive and simple in its application. However, to insure its workability, this basic function should be freed from the inpediment of duties which have become incompatible with its primary job of pro-



Law Changes Have Increased the Commission's Work

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tecting users and preserving the economic values of transportation in the national and public interest.

What then is the alternative? Stubborn uncritical acceptance of the present organization solves nothing. Nor will its solution be advanced by sensational, generalized headline-making attacks on *all* independent agencies, on the erroneous assumption that their functions, processes, and burdens are alike.

No Drastic Reforms Required

I AM not intimately acquainted with the specific problems of other administrative agencies and, from some of the comments others have made about the ICC, it is obvious that those who speak concerning us have only superficial knowledge of ours. The one thing which I do know is that in the light of substantial differences in the work load, distribution of functions and statutory objectives, those who would apply a bludgeon instead of a scalpel to cure the unspecified ills of all administrative agencies are as dangerous as the curbstone doctor. They, in effect, urge conformity for conformity's sake. Yet, the greatest inequality results in trying to equalize the unequal, and the graveyard of progress is conformity.

If what I propose for the ICC is not spectacular, it is because the defect itself is not obscure or complicated. In my opinion, we can preserve the broad, flexible advantages of the ICC as an independent agency by a simple excision.

THOSE duties which are essentially managerial or administrative, so-called "line functions," can best be performed by a single administrator. They require direct action and responsibility. Therefore, some means should be found

to separate them from the commission. This can be done by a vertical division of the commission into two separate bodies: one to take over the administrative job and the other to retain the quasi-judicial and quasi-legislative work. Such a plan would preserve the experience and advantages of the present system without disruption and expense; it would require minor adjustment and, even if it were imperfect, could be tried without being irrevocable. As a transitory step, the administrative operations could be assigned exclusively to one of the commissioners who could be freed of other duties.

Solution Not a New One

I MAY add that my suggestion is not new or original. In fact, it was first made thirty years ago by a committee of the National Industrial Traffic League, an old established organization which represents all of the shippers of the United States. The majority of the committee favored dividing the ICC into two bodies; one for the control of rates, etc., and one for the control of facilities. If it was a valid judgment under conditions prevailing then, it should be more than valid now.

Those who would destroy administrative agencies would have us believe that there is something fundamentally wrong in the delegation of quasi-legislative duties to such agencies. Now, I do not mean to imply that the agencies have not made mistakes, that their judgment is infallible, or that there is not room for improvement. So long as the affairs of men are run by men and not machines, this is inevitable.

NEVERTHELESS, their criticism sounds petulant, carping, and artificial. I hate to say this but I shall tell you why I think so. Every decision of the commission touches the pocketbook and the emotions of someone—not remotely, but directly. It may be a carrier or a group of carriers, a shipper or an entire industry, a form of transport or all of the transportation industry. They could and do disagree, at times vigorously and bitterly, with our decisions. While some want more regulation and others less, none of them, to my knowledge, want to change the commission-type agency. Can it be that they harbor such sentiment and are unable or unwilling to give it expression? It is hardly likely.

Nowadays every conceivable activity in our economy is highly organized. There is no industry or trade that does not have a powerful association to speak for it; scarcely any part of our economic life is not represented in this fashion, from scrap iron dealers to florists. The segments of the transportation industry are similarly organized. These associations can speak for individuals and preserve the anonymity of their members. They are informed, alert, capably staffed, and vocal. It is improbable that they would permit coercive tactics, official abuse of power, arbitrary intervention into private business, and improper decisions to prejudice the interests they represent.

THE interests of all these groups are in sharp conflict in matters coming before the commission. A decision, at times, can hurt some of them to the tune of millions of dollars. Would such powerful associations, including labor, industry, shippers, farmers, taxpayers, chambers of commerce, public officials, practitioners, and motor carrier lawyers, long tolerate

the exercise of control over the affairs of their members by a bumbling, inept, arbitrary, or illegal bureaucracy? Are those who are vitally affected clamoring for the abolition of the commission? There is no such evidence.

The Supreme Court of the United States has upheld this delegation of power repeatedly.

ICC Has Stood Test of Time

THOSE who practice before the ICC are satisfied with the fairness of its procedures. In fact, they themselves have helped to formulate them through the years. Although the ICC disposed in 1958 of more cases on the merits than all the civil cases decided during the same period by all the federal courts of the United States combined, out of 44 cases appealed to the courts in the fiscal year 1959, the commission was reversed in only 16 per cent. By comparison, federal district courts have been reversed in 23 per cent of the cases appealed to the circuit courts.

Until recently, all the attacks of those who would jettison the independent agencies have been from people who had little contact with them. On September 10, 1959, Louis J. Hector, who had a short experience with the Civil Aeronautics Board, quit with a dramatic valedictory which got considerable publicity. He claims that the problems of the CAB are "born of the very concept of the independent administrative commission." I cannot agree with him that the machinery regulating the *economics* of transportation should be uprooted for some untried substitute. You do not tear down a structure which is essentially sound. If there are defects, you repair; if there are insects, you fumigate.

Delay Is Worst Complaint

I CONCEIVE it to be the duty of a public officer to explain the strengths and weaknesses of our regulatory processes, not on the basis of pique or personal philosophy but on the basis of facts and logic so that those who must be served can make a necessary evaluation. In my experience of many years, as a transportation student, practitioner, and member of the commission, the only substantial complaint I have met is that of delay.

Delay is due to congestion; many courts also have delay. Delay cannot be cured by further constipating the functions of government by added bureaucracy; or by substituting cumbersome, impractical machinery of three or four separate overlapping agencies for the work now performed by the commission. Businessmen are realists. They want decisive and prompt action, since plans involving con-

Adding It All Up

"NOW, what does all this mean? It means simply that the heavy demands on the commission's attention and time for purely administrative duties not only serve to impede the efficient exercise of adjudicatory functions, but that failure to distinguish between the two has given some color to the insinuation of those who would scuttle independent agencies that administrative law has degenerated into 'administrative lawlessness.' "

siderable investment often depend upon them. They do not want more red tape, delay, and the opportunity for pettifogging.

As a matter of fact, the complicated setup proposed by some could drive a businessman to desperation.

In Summation

I HAVE tried to give only a general outline of the appropriate separation of functions. It may be that, although annual and other reports of carriers and the supervision of accounts, etc., are administrative, the economic experts and the cost study experts now with such bureaus should remain within the commission. It is quite possible. I am not, within the limits of this article, trying to delineate a detailed plan.

This proposal does not, of course, in any way preclude the improvement of procedures and processes of regulation which the commission is actively and energetically pursuing. On the contrary, it would encourage and promote such improvement by affording the commissioners the time necessary to devote to such ends without the diversions and distractions they now face.

New demands on transportation arise constantly in a dynamic economy. No one can deny that the nation's economic and military requirements make its public transportation more and more indispensable. To the extent that the ICC can contribute to giving vigor and dynamism to our transportation system, this is a full-time job. In the face of indicia that our present transportation media must move fast to match the expanding needs of this nation, I wonder if we have any choice in the matter of tuning up its regulatory machinery.

Blames Compulsory Unionism

"THE steel settlement on the union bosses' terms will add more than a billion dollars a year to the cost of steel production. According to all informed commentators, this gigantic bill will be passed along, sooner or later, to the public. It always has been before.

"When that occurs, the blame must be placed squarely where it belongs—on a system of compulsory union membership which reduces American wage earners to the inglorious rôle of stooges for self-seeking union bosses in their unrestricted race for personal power.

"The settlement was a definite political victory for the power of the steelworker bosses who had forced 500,000 union members into their longest strike in history when according to all opinion polls the vast majority wanted no strike at all.

"But it is certainly not a good settlement for the public, which must pay the bill, or for the workers who in addition to sharing that cost, will never recover the income lost during the strike. The wife of a steelworker told us recently that 'no steelworker ever makes up the amount of money lost during a strike. From one strike to the next it isn't possible.' "

—W. T. HARRISON,
President, National Right to Work Committee.

Gas Confusion, Unlimited

By ARTHUR K. LEE*

So much confusion dominates the regulation of gas that it is generally agreed that something must be done to eliminate it. The FPC has urged that something similar to the Harris Bill be enacted. Secretary Seaton said the gas industry should take the lead in protecting the interests of consumers. Clarifying legislation by Congress must be forthcoming in order to devise more equitable methods of producing, pricing, and selling gas both to the individual consumer and to industry.

THE present hopelessly confused position of gas regulation has convinced me that this condition will continue to worsen until the industry realizes that the demand for gas for residential and superior industrial uses is seasonal, that winter sales of gas itself based upon field prices and of its transportation to the user are separate services and must be separately regulated, but that summer sales under the cover of separate regulation can be made competitive with other fuels.

Our government for many years has been subsidizing farmers to raise products and in every farm community are stored large quantities which the market cannot absorb at the subsidized price, notwithstanding large foreign give-away and charity programs. Twenty-two million families are likewise subsidizing the "raising" of 40 per cent of the gas sold through interstate pipelines, for almost all of which there is and can be no economic storage and which should be left where it has been stored for millions of years unless the users are willing to pay their fair share of both production and transportation to market.

IN my opinion four major changes are needed to deflate this magnifying confusion:

*Chairman of the board, United Cities Gas Company, Chicago, Illinois. For additional personal note, see "Pages with the Editors."

1. PRODUCERS should voluntarily or through regulation in the public and conservation interest rescind or modify contracts which compel pipelines to take or pay for in the summer months quantities nearly as great as their maximum winter requirements. In this they should be protected against gas migration by adequate prorationing laws.

2. WITHOUT "take or pay" summer obligations, pipelines can voluntarily (or must through regulation) discard the presently used two-part and similarly charged "tilting" rates. They may charge for firm gas at a rate reflecting only the actual average field cost thereof, plus another charge for transportation, the real business for which pipelines like railroads exist. To attract and serve those consumers whose uses cannot afford the full firm cost, a proper interruptible transportation reduction of say 25 per cent or even 33⅓ per cent can be allowed. Such reduced charge should at least compensate the pipelines for a reasonable portion of actual operational and investment costs, instead of the free or pittance charges now existing and diminishing. Pipelines can then offer to their producers on a pro rata basis for summer gas the highest rate, above their transportation charge, their present and prospective customers are willing to pay. Thus competition between fuels for industrial business, now absent, will be established.

3. DIRECT sales by pipelines to consumers should be made jurisdictional by Congress. Pipelines in 1958 sold 1,516 million Mcf direct to consumers. Under the Natural Gas Act the Federal Power Commission has no jurisdiction over these sales, and while they are supposed to pay actual costs, profits from these sales are independent, unaccounted for revenue for pipelines. These sales varied only slightly during each month of 1958 (and recently previous years). In other words, profits from such sales, at rates no less than for other firm gas, should become another portion of the overall fair rate of return.

4. THE Congress should amend the Natural Gas Act to establish principles under which the Federal Power Commission can alleviate the present log jam on producer rate cases. Thirty-five firms produce two-thirds of the gas bought by interstate pipelines, less than 1,000 produce 98 per cent, and about 4,500 produce the other 2 per cent. The Supreme Court decided June 7, 1954, that Congress intended producers to be subject to the Natural Gas Act, which meant that their charges must be "fair and reasonable."[1] Since then the court has decided that in judging rates, costs must first be considered.

It is possible that the Federal Power Commission might individually consider the cases of the 35 largest producers and possibly a few of the 1,000, but it is manifestly impossible for any commission to do much more. Consequently, in fairness to both the producers and consumers (who ultimately pay these costs), some fair price plateau must be established under which prices can have more or less automatic approval.

Thoughts on Two-part Rate

LATER in this article, I am presenting a table in which I have attempted to show as closely as possible the quantity,

[1] Phillips Petroleum Co. *v.* Wisconsin (1954) 347 US 672, 3 PUR3d 129.

field cost price, and revenue therefrom by ultimate uses, of all gas passing through interstate pipelines in 1958. Under the two-part rate distributors are being forced to pay for transportation of gas sold residential consumers three times as much as for the same quantity of interruptible industrial gas.

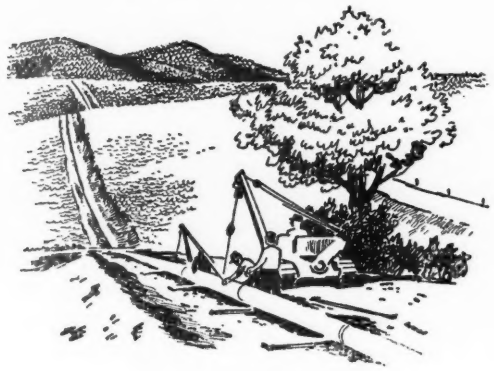
A few definitions of gas nomenclature and explanations of terms and the two-part rate will contribute to a better understanding of the present picture.

Quantity of heat is expressed by use of the British thermal unit (Btu). Each cubic foot of gas, with some variation, contains 1,000 Btu's, 100 cubic feet of 1,000 Btu gas equals one therm and 1,000 cubic feet is one Mcf. Purchase of firm gas means that seller agrees, in the case of residences, to furnish all normal requirements at any time and in the case of industry all requirements up to a maximum volume per hour or day. Purchase of interruptible gas means that purchaser must install auxiliary equipment so that upon agreed notice he can discontinue the use of gas until otherwise advised.

It is pretty generally agreed that residential use for cooking, water heating, refrigeration, and space heating is *the* superior use of gas, that commercial use is

How to Compute a Gas Price

"IT should be an easy matter for every pipeline to calculate the transportation rate on all gas sold, which, excluding interruptible, would equal its present gross profit from those sales, and, with approval of the Federal Power Commission, apply those rates. The increased return on direct sales, when made jurisdictional, will more than cover the loss on sales of interruptible gas, if it is all lost, which it will not be, because pipelines could be allowed to offer a 25 per cent discount on all interruptible sales, under proper reporting, and if producers desired to continue these sales a like or larger discount on interruptible gas would undoubtedly hold the business. A 25 per cent discount each by producer and pipeline, would deliver interruptible gas on the basis of 1958 table prices at 25 cents per Mcf and if an industry cannot pay actual costs, plus a small distributor's profit, the sale should not interest the pipeline, the producer, or the distributor."



equally superior, that firm industrial, especially for superior purposes, is *a* superior use but that interruptible use where other forms of fuels can be used at the same or a lower price is an inferior use.

THE two-part rate was installed when gas was being flared or otherwise wasted because there was no market for it and in the hope that when the gas from a certain structure was exhausted, oil would be found in lower strata. It was at first used entirely to force distributors to seek industrial markets, no matter how small the profit to pipeline or producer, for a by-product of the search for oil, which would otherwise have brought at most one or two cents per Mcf for carbon black production.

The rate consists of two parts, one designated "commodity" and the other "demand." The first represents the cost of the quantity delivered, the second a monthly charge for the space needed to carry the highest daily use during the year. Between the two a middle area of operating costs was divided on a somewhat hit-or-miss basis at first, but later by the Seaboard decision a formula was established, largely 50-50. Since 1954 the middle area has been developing rapidly into a one horse for demand and one rabbit for commodity formula. ("Tilting" it is now called.) Because interruptible gas pays no part of the "demand" charge, the residential customer pays nearly all the transportation charges for both himself and the interruptible customer.

An Example of Gas Pricing

BEFORE taking a look at the table I have prepared, I think it will give the gas layman a better preparation to digest the figures for interstate gas movement of the nation as a whole to follow as an example some of the transactions relating to this phase of its activities by one of the major pipelines, the Tennessee Gas Transmission Company (TGT), selected because it transported in 1958 10 per cent of all interstate sales—it is one of three lines serving the Pennsylvania, New Jersey, and New York areas whose competition with each other for low-priced industrial sales in that area is greater than it is with coal and oil—and because its transactions provide perhaps the best illustration of the practices I wish to bring to your attention.

TGT, as it is generally designated, was organized or bought by the Chicago Corporation in the late forties to provide a market, primarily in the Pittsburgh area, for large reserves of Texas gas, previously developed in a search for oil. When it appeared that ownership of the pipeline might limit its gas field earnings to rates allowed pipelines, the pipeline was sold to the general public. Quoting *Forbes* magazine of March 15, 1958, "The $41.2 million operating revenues of Tennessee Gas Transmission in 1949 increased 660.2 per cent by last year (1957) while profits showed a gain of 341.3 per cent. And Tennessee's common stock rose even faster than profits, climbing 262.5 per cent at its high of last year." Some time after the divestment by Chicago, most, if not all, of its contracts for the sale of gas to TGT were renegotiated with substantially increased prices. Contract renegotiation, in the gas industry in recent years, has always meant a price increase. Its usual excuse is "favored nation" or other escala-

tion clauses and in many cases signing of contracts for additional gas reserves.

TGT continued to expand and entered into competition with Texas Eastern and Transcontinental for the New York and New England markets. In 1957 it signed a contract with four large oil companies, known as CATCO, operating in the edge of the Gulf of Mexico, for the largest reserve ever bought in one contract, estimated at a minimum of 1.5 trillion and a maximum of 6 trillion cubic feet. The price was to be 22 cents plus state tax, now between 1 cent and 2 cents, and escalating to 35 cents in four- or five-year steps. A majority of the Federal Power Commission finally approved this contract, first, because TGT said it badly needed the gas supply for its customers and, second, because CATCO threatened to start negotiations for intrastate sale. How transparent this latter threat should have been is evidenced by the fact that even after general increases, all the gas sold for industrial use in Louisiana through utilities in 1958 received at retail only a price of 18 cents. In Texas the average, including retail sales, was only 17 cents.

The Supreme Court has remanded this contract to the commission a second time for rehearing as to cost but in the meantime the necessary lines have been built and authorized quantities up to 240 million cubic feet are being delivered and paid for daily at 23 cents plus, by TGT and its customers. Quoting from *Petroleum Week* of February 5, 1960: "The offshore operations of the CATCO group—Continental, Atlantic, Tidewater, and Cities Service—may be in the black in 1960. That's the estimate of George F. Getty II, president of Tidewater. He predicted that a speed-up in offshore production and an increase in revenues make it likely that the 'present investment will pay out in four or five years.' " Does that mean 20 per cent to 25 per cent per year, including liquidation of investment?

AFTER the approval of this purchase or coincident therewith, TGT decided that it wished to purchase quantities of gas in Canada, form a subsidiary, Midwestern Gas Transmission Company, and through a line from a point on its main line near Nashville, Tennessee, to the Canadian border, serve the Wisconsin and Illinois areas, partially in competition with

Pay Gas Incentive for Oil Exploration?

"EXAMINER Zwerdling in his April Phillips case decision subject to approval (still absent) of the commission said Phillips' fair price of gas, after income tax, for all its properties should be 11.66 cents per Mcf, and that that price would produce, by way of incentive in addition to regular return, 9.25 per cent. That means that before income tax gross earnings would be 19 per cent. If phantom taxes were allowed the company gross earnings would be 26 per cent and net earnings after income tax 16.25 per cent. This would seem to constitute considerable incentive. But is it good business to pay **gas incentive** for **oil exploration?**"

other lines. This application the Federal Power Commission rejected, but on May 12, 1959, approved the building of a line from Portland, Tennessee, to Joliet, Illinois, for delivery for the three major distribution companies of the Chicago area of 360,000 Mcf per day, ultimately 700,000 Mcf per day, the initial delivery rate being 22 cents per Mcf for commodity and $3.85 for demand. Please note that the commodity charge is over one cent per Mcf less than TGT is paying for much of this gas in the Gulf of Mexico. Why should TGT, an eminently successful company, do this? Because of CATCO contracts contain various "take or pay" provisions under which TGT must daily purchase or pay for a minimum quantity. For instance, several are "1,000 Mcf per day per 8 million reserve; maximum 125 per cent of that amount." That is the reason a Texas producer[2] of nearly 7 million Mcf in 1958, at an FPC hearing June 10, 1959, complained that TGT cut back its take from him of 12-cent gas very substantially because it was compelled to take high-priced Tideland gas, presumably some or all of it from CATCO at 23 cents.

PIPELINE justification for the 22-cent delivery charge near Chicago, of course, is that average cost is less than 23 cents. TGT's own rate increase filings indicate that nearly all expansion which it has undertaken since 1954 has come from purchase of Louisiana gas, the average price of which in that period has risen from 9.2 cents to 22.7 cents, and in its most recent application the test year cost for all purchases is 18.2 cents, having increased 8 cents since 1954. TGT since January, 1957, has three applications for rate increases pending, amounting in total to $70 million. Customers started paying the first of these July 14, 1957, the second May 15, 1959, and the third will become effective April 5, 1960.

Thus we see that delay of two or three years, in pipeline rate decisions, which has become the ordinary rather than the unusual since producer confusion has become so prevalent, is causing large amounts of unapproved increases to be paid each month by distributors and consumers, dislocation of distributor and consumer finances, and loss of new and present business because of large increases which may eventually have to be refunded.

NOW let us return to the $3.85 demand charge. Because this is a monthly charge it amounts to approximately 13 cents ($3.85 divided by 30) per Mcf if the same amount is transported 365 days of the year. But if the average is only 50 per cent of the highest day, thus becoming a 50 per cent load factor use, that means the purchaser must pay 26 cents per Mcf for the demand charge. The Chicago community has large industrial loads and the probabilities are that 40 per cent of this gas will be ultimately used by (a) residential consumers, 20 per cent by (b) firm industrial users, and 40 per cent by (c) interruptible industrial users. In that case the Chicago distributors will pay per Mcf for (a) 44.75 cents, (b) 41.5 cents, and (c) 22 cents and the transportation charge for CATCO gas will be (a) 31.75 cents, (b) 28.5 cents, and (c) minus 1 cent.

TGT has recently purchased the stock and now controls East Tennessee Natural Gas Company. The rate which will be effective in Zone 2 of that system, coinci-

[2] See testimony of Mr. Lyman in G-9289, June 8-10, 1959.

APPROXIMATE FIELD COST OF ALL GAS SOLD BY INTERSTATE PIPELINES, AND REVENUE THEREFROM IN 1958, EXCLUDING INTER-PIPELINE SALES OF COMPANIES CLASSIFIED AS NATURAL GAS PIPELINES BY THE FEDERAL POWER COMMISSION, SEGREGATED AS TO ESTIMATED FINAL RETAIL CUSTOMER USE

	Annual Sales In Mcf.	*Approximate Per Cents* An- nual	Win- ter	Sum- mer	*Winter Load (November to April) Sales* Mcf.	Per Mcf.	Dollars	*Cost of Gas @ 13¢ Per Mcf.*	*Bal. for Transp.* Per Mcf.	Dollars
Residential Cooking, Hot Water Heating, Etc.[1]	660,000,000	10	5	5	330,000,000	33¢	108,900,000	42,900,000	20¢	66,000,000
Commercial[2]	600,000,000	9	4.5	4.5	300,000,000	33¢	99,000,000	39,000,000	20¢	60,000,000
Direct Sales to Ultimate Consumers[3]	1,516,000,000	23	11	12	726,000,000	24.7¢	179,322,000	94,380,000	11.7¢	84,942,000
Firm Industrial[4]	840,000,000	13	8.5	4.5	560,000,000	37¢	207,200,000	72,800,000	24¢	134,400,000
Residential Space Heating[5]	1,633,600,000	24	21	3	**1,429,600,000	40¢	571,840,000	185,848,000	27¢	385,992,000
To Distributors for Interruptible Use[6]	1,374,101,000	21	2	19	151,000,000	22¢	33,220,000	19,630,000	09¢	13,590,000
Total Sales	*6,623,701,000	100	52	48	3,496,600,000	34.3¢	1,199,482,000	454,558,000	21.3¢	744,924,000

	(Summer Load May to October) Sales Mcf.	Per Mcf.	Dollars	*Cost of Gas @ 13¢ Per Mcf.*	Mcf.	Dollars	*Net Annual Revenue Dollars*
Residential Cooking, Hot Water Heating, Etc.[1]	330,000,000	33¢	108,900,000	42,900,000	20¢	66,000,000	132,000,000
Commercial[2]	300,000,000	33¢	99,000,000	39,000,000	20¢	60,000,000	120,000,000
Direct Sales to Ultimate Consumers[3]	790,000,000	24.7¢	195,130,000	102,700,000	11.7¢	92,430,000	177,372,000
Firm Industrial[4]	280,000,000	37¢	103,600,000	36,400,000	24¢	67,200,000	201,600,000
Residential Space Heating[5]	204,000,000	40¢	81,600,000	26,520,000	27¢	55,080,000	441,072,000
To Distributors for Interruptible Use[6]	1,223,101,000	22¢	269,082,220	159,003,130	09¢	110,079,090	123,669,090
Total Sales	3,127,101,000	27.4¢	857,312,220	406,523,130	14.4¢	450,789,090	1,195,713,090

*This is volume computed by Bureau of Statistics of American Gas Association. It shows total revenue as $2,050,849, independent producer cost at 13 cents per Mcf, pipeline production cost at 9.4 cents, and total gas cost at 15.91 cents. As the latter figure includes gas purchased from other pipelines, the Federal Power Commission figure of an average 13-cent cost from all independent producers is used in above statement.

**This includes gas received: (a) 400 million from storage; (b) 400 million from importing states production.

[1] Twenty-five million, seven hundred eighty-four thousand residential consumers in 1958 burned an estimated average of 2.5 Mcf of natural gas per month for cooking, water heating, and in other small appliances. But 3,790,000 of these lived in the states of Texas, Louisiana, Oklahoma, New Mexico, Kansas, Mississippi, and Wyoming, which export gas through interstate lines. As we are interested only in sale and use of gas through interstate lines, number of consumers in these exporting states are deducted; 21,994,000 residential consumers at 30 Mcf means use of 659,820,000 Mcf.

[2] Per *Gas Facts*, authoritative year book of American Gas Association, commercial sales in importing states were 600 million Mcf.

[3] Authority, Federal Power Commission release.

[4] *Gas Facts* shows slightly over 4 billion Mcf sold for industrial purposes. Deducting direct sales and those made in exporting states, firm industrial sales exceed 840 million. Investigation placed a fair estimate of 560 million as used in winter and 280 million in summer.

[5] Excluding gas exporting states, there were 7,840,000 residential space-heating consumers in states north and 7,085,000 south of approximate St. Louis latitude. An average use for space heating only of 140 Mcf or 1,097,600,000 by the former and 80 Mcf or 536 million by the latter, a total of 1,633,600,000 Mcf is a conservative estimate.

[6] This is the balance of total gas sold.

dent with TGT's last increase, will for (a) above be 64.3 cents. That means that East Tennessee users of heating gas are paying TGT indirectly field and transportation charges for an average 100 Mcf use of gas $19 per year more than Chicago users through another subsidiary twice as far away from main-line delivery. Is not this discrimination between residential and interruptible users in Chicago by "tilting" and also discrimination as between East Tennessee and Chicago by localities? The Natural Gas Act forbids discrimination.

Some Other Aspects

Now I think you are ready to study the table on page 449 which I have compiled to set forth the end use of the gas purchased in 1958 by interstate lines, the seasonal sales to distributors for each class of use, costs and revenues, and finally the difference between costs and revenues, the total of which must be the total profit available last year from the sale of gas with which to pay all other expenses and return. There were additional profits of $158 million available from gas transportation, sale of extracted products, etc., but these would be available irrespective of the practices considered in this article and are therefore not included. Releases by FPC show larger volumes by 27 per cent and revenues by 23 per cent than are shown in this table because of the inclusion of sales by some 23 primary pipelines to some 14 secondary lines.

Because of the millions of residential and commercial consumers and the hundreds of thousands of industrial and other consumers, plus such things as unaccounted for, loss and waste, storage inaccuracies, faulty reports, etc, etc., it is not possible to construct more than a reasonably approximate report. I believe, however, my figures are sufficiently accurate to give interested users of gas an understanding of whether they are paying more than their fair share of costs and a fair and reasonable profit. The footnotes will show you how I have arrived at the cubic feet used by and charged to each group.

The importance of the table, however, lies in the fact that by segregation of charges between cost of gas and transportation and its division of sales between seasons, competition between fuels and between pipelines becomes an actuality. It would manifestly create magnified confusion for the 1,111 distributors of natural gas in 1958 to separately try to purchase their needs and then employ pipelines to transport the gas. Railways can be and are operated in this manner but as gas must be contained under pressure until it is used, ownership cannot be segregated. Pipelines should continue to buy all gas for all users and then, under FPC supervision, bill all distributors the average cost including recognized expenses in connection therewith. It might be proper to consider them as acting as agents for all their customers in this capacity.

How to Compute a Gas Price

It should be an easy matter for every pipeline to calculate the transportation rate on all gas sold, which, excluding interruptible, would equal its present gross profit from those sales, and, with approval of the Federal Power Commission, apply those rates. The increased return on direct sales, when made jurisdictional, will more than cover the loss on sales of interruptible gas, if it is all lost, which it will

GAS CONFUSION, UNLIMITED

Two-part Rule Hits Residential Consumer

"THE rate consists of two parts, one designated 'commodity' and the other 'demand.' The first represents the cost of the quantity delivered, the second a monthly charge for the space needed to carry the highest daily use during the year. Between the two a middle area of operating costs was divided on a somewhat hit-or-miss basis at first, but later by the Seaboard decision a formula was established, largely 50-50. Since 1954 the middle area has been developing rapidly into a one horse for demand and one rabbit for commodity formula. ('Tilting' it is now called.) Because interruptible gas pays no part of the 'demand' charge, the residential customer pays nearly all the transportation charges for both himself and the interruptible customer."

not be, because pipelines could be allowed to offer a 25 per cent discount on all interruptible sales, under proper reporting, and if producers desired to continue these sales a like or larger discount on interruptible gas would undoubtedly hold the business. A 25 per cent discount each by producer and pipeline, would deliver interruptible gas on the basis of 1958 table prices at 25 cents per Mcf and if an industry cannot pay actual costs, plus a small distributor's profit, the sale should not interest the pipeline, the producer, or the distributor.

THIS change, in addition to placing the pipeline and producer on a competitive basis, will place all distributors, whether in small residential towns or large industrial cities, on the same cost basis for firm gas.

They will also be on the same cost basis for interruptible gas if they can sell it at prices the producer is voluntarily willing to take. The price as between various classes of use can then be rightly fixed locally, subject to approval of the state commission, or other local authority. At present both the local distributor and the various state utility commissions have little latitude in varying the cost pattern laid down for gas purchase under the pipelines' distorted two-part rate.

PLEASE note from the table that pipelines on an overall basis would be 100 per cent employed in winter months and 62 per cent in summer, an average of 81 per cent, without the sale of *any* interruptible gas. They would also have available for winter safety factor, 400 million Mcf from storage, and this could be increased by allowing pipelines to form subsidiary storage companies, with independent profits, which could fill storage at prevailing gas and transportation charges during the summer and deliver when needed at winter sales rates.

An additional safety factor is the purchase by interstate lines of winter gas in near terminal states, which in 1958 exceeded 400 million Mcf.

I think the preceding discussion and table pretty well cover my points 1, 2, and 3 above. Because of the large number of small producers as set forth under No. 4, and the impossibility of judging each on an individual basis, I still advocate the suggestions contained in my article on this subject in PUBLIC UTILITIES FORTNIGHTLY of March 26, 1959,[3] and especially that relating to division of gas-producing areas into large districts.

Length of Gas Contracts Shorten

WHEN the Natural Gas Act was passed a real buyer's market existed. No one could conceive a reversal. Known recoverable reserves have increased every year but sales have also increased and today interstate and intrastate shipments plus field use amount to 11 trillion feet. The Federal Power Commission originally properly insisted on a known 20-year supply under contract before issuing a certificate for a new line. Today a 12-year supply for line enlargements or extensions is sometimes considered sufficient. Of course, every pipeline wants to assure its own supply safety and the commission has properly taken the position that every contract for interstate gas, whether made for twelve or twenty years, is for the life of the recoverable reserve.

It would probably be fair to presume that the average life of existing contracts is fifteen years, and, if that is so, disregarding increasing sales, there is only an additional ten-year supply *known* to exist and subject to new long-term contract sale as of today. Of course, new gas reserves are being developed each year in the search for oil, and production authorities estimate five or more times our present reserves will be available. However, they cannot be contracted for as of today and that is why we now have a sellers' market.

Some Price Yardstick Must Be Devised

IN the article above referred to I stated that producer rate suspensions involving $81,988,693 were pending as of November 30, 1958. The dollar amount has increased to $160,171,317 as of the end of 1959. The commission is seemingly only trying to "hold the line" as to producer prices and the plateau at which it is trying to hold the line is that created by its own decisions in the CATCO and Transcontinental cases, both of which have been remanded by the Supreme Court for further hearings as to costs. Another favorite method which seems to be developing is "agreement," after one party becomes

[3] "Producer and Gas Pipeline Yardsticks," by Arthur K. Lee. PUBIC UTILITIES FORTNIGHTLY, March 26, 1959, Vol. 63, No. 7, p. 451.

unable to consent to further delay. I believe the commission should fix an allowable price for each district, using a liberal cost basis, plus sums for average dry holes, based on larger operations, and plus a reasonable incentive allowance. If permanent approval of new production contracts at prices equal to or less than this yardstick price were placed on an automatic basis, a producer could know the minimum price to be anticipated before investing. If he felt after production were realized that his costs would warrant a larger price, he could accept a temporary certificate until his case could be heard.

In fixing a district price yardstick, I feel only limited consideration should be given to many of the problems, to each of which Examiner Zwerdling devoted weeks in the Phillips case, as necessitated by detailed judgment under present law. Some of these points and my view of same are:

1. ALLOCATION of exploration costs between gas and oil wells. When a would-be producer of oil or gas selects a location for his new wildcat well, there is generally no information he can obtain as to which product, if either, will be found. But with oil worth probably six times the equivalent Btu's of gas, his incentive is at least 75 per cent, the hope of finding oil.

2. ALLOCATION of operational costs of dual production wells. It is true that in 1958 of total production of 13 billion Mcf, 4 billion came from oil wells. But of this oil well production, repressuring of oil wells consumed 1.5 billion Mcf, another 1.4 billion was consumed in field use, and 600 million vented and wasted (both the latter almost entirely in oil well operation), so that only about 10 per cent of gas production from oil wells actually reached either the interstate or intrastate markets. Little, if any, oil well costs should enter gas computations. Yardstick prices should be fixed by gas well costs only.

3. INTRASTATE sale competition. Bureau of Mines figures for 1958 showed 4,687,756,000 Mcf used intrastate. If we subtract from this 1.4 billion Mcf field use, 600 million Mcf losses and waste, the net for sale is 2.7 billion Mcf. In the seven producing states heretofore omitted from interstate use figures, the gas sold through utilities was, per *Gas Facts*, 2,392,600,000 Mcf, which would seem to leave only 300 million Mcf for other intrastate sale. The price for all gas sold by utilities in producing states, including pipeline and distribution service, was 28 cents per Mcf, and for the 1,689,300,000 sold to industry 18 cents per Mcf. Would you believe much wholesale intrastate competition to exist in states retailing gas at these figures?

4. THERE must be higher prices to produce incentive. I have already under No. 1 shown why *exploratory* wells are almost always drilled in a search for oil and if gas is discovered, it is a by-product, but with knowledge of gas existence in a structure many *developmental* wells will then be drilled. Statements have been made that only one well in eight or ten is a producer. The large-scale oil and gas operators have no such dry well proportion. An entreprenuer, if he desires to gamble under the yardstick price I have suggested, will, if he strikes even a gas

well, be in the money because if he knows the oil and gas business, he will have protected himself by sufficient land or lease ownership to drill at least eight additional gas wells.

Examiner Zwerdling in his April Phillips case decision subject to approval (still absent) of the commission said Phillips' fair price of gas, after income tax, for all its properties should be 11.66 cents per Mcf, and that that price would produce, by way of incentive in addition to regular return, 9.25 per cent. That means that before income tax gross earnings would be 19 per cent. If phantom taxes were allowed the company gross earnings would be 26 per cent and net earnings after income tax 16.25 per cent. This would seem to constitute considerable incentive.

But is it good business to pay *gas incentive* for *oil exploration?*

As of January 22, 1960, pipeline rate cases pending, most of which are being collected under bond, per *Gas Distributors Information Service,* included those shown in table below.

These increases are based partially upon a requested return upon investment after income tax, of 6 to 7.5 per cent but principally upon increased field prices. The increases as applied to residential gas only are probably up to 50 per cent greater than the average increases shown.

Borrowing Money by Rate Increases

The Natural Gas Act gives the Federal Power Commission one month to suspend and five additional months to pass upon any rate increase application. If the increase has not been decided at the end of that time, the applicant may put

	Number of Increases	*Amount*	*Percentage Increase Since 1957*
Tennessee Gas Transmission	3	$ 70,774,000	35.9%
El Paso Natural Gas	2	46,500,000	29
United Fuel Gas	5	37,991,000	30.9
United Gas Pipeline	5	34,120,000	20.9
Texas Eastern	2	28,203,000	14.2
Panhandle Eastern	3	27,839,000	21.7
Northern Natural	3	24,436,000	24.8
Southern Natural	2	17,892,000	47.5
Transcontinental Gas	1	15,549,000	11.7
Atlantic Seaboard	4	12,419,000	21.1
Hope Natural	3	10,960,000	22.4
Cities Service Gas	1	10,512,000	22.9
Natural Gas Pipeline	2	10,112,000	29.2
Trunkline Gas	1	9,580,000	25.5
Kentucky Gas Transmission	4	8,629,000	27.1
New York State Natural	3	8,129,000	13
Texas Gas Transmission	1	6,986,000	24.3
Manufacturers Light & Heat	5	5,833,000	19.8
Texas Illinois	2	5,444,000	11.4
Ohio Fuel Gas	3	4,262,000	8.8
Mississippi River Fuel	1	4,097,000	16.1
Algonquin Gas	1	4,062,000	12.2
Pacific Northwest	1	3,800,000	17
Michigan Wisconsin	1	2,768,000	4.9
Total Pending		$410,765,000	

the increase into effect, subject to refund based upon final decision. Most of the increases requested above ($34 million each month or between $1 and $1.50 from, per table, each of 22 million residential users), simply upon the representations of applicants that they should be allowed to net after income tax up to 7.5 per cent on their investments after all increased gas and other operating costs. Some applicants feel the easiest way for them to borrow money is to make application for a rate increase and at the end of six months collect needed funds from consumers. If after two or three years, the commission decides the increase or part thereof, say the 7.5 per cent instead of the usual 6 per cent of the past (which increased return should be severed and decided forthwith), is unjust, temporary funds can be borrowed and the refund collected by another application. The bill of Representative Brock (Democrat, Nebraska), No. 10309, now pending in the House, should be passed if Congress can accelerate commission procedure.

FPC Favors Gas Legislation

THE Federal Power Commission, in its annual report recently issued, favors the adoption of legislation similar to the again pending Harris Bill. Four times Congress has been asked to pass the Harris Bill or similar legislation to minimize producer control and four times it has been rejected by lack of votes or presidential veto. There is no doubt that passage of the present Harris Bill would render moot the decisions of the Supreme Court remanding the CATCO and Transcontinental cases. It would also largely take producers out of the commission's hair and depend in fixing field prices chiefly upon arm's-length bargaining between the producer and pipeline. The producer would, of course, be anxious to realize the highest price for maximum daily sales. The pipeline would be anxious to increase its contracted reserve in order to prolong the length of safeguarded service by its line, at any price it can recover from the consumer, who finally pays the bill for someone else's "arm's-length" negotiations. Field price increases under these conditions will only stop when 25 million residential consumers are forced to begin to discard their gas-burning equipment.

Secretary of the Interior Seaton, in addressing the annual meeting of the American Gas Association in Chicago, expressed the hope that the gas industry will take the lead in seeking appropriate legislation protecting the interests of the consumers of natural gas. It is my opinion, as expressed herein, that there was very considerable diversity of interest in 1958 between the producers, the pipelines, and an estimated 100 to 200 large distributors on the one hand and the other 911 to 1,011 distributors and 25 million residential users on the other. The statements herein, coming from a small distributor, may be and probably are prejudiced. I offer them in the hope that the plan suggested may be helpful in leading toward a fair solution.

The delay in arriving at a policy is confusing the producer, the pipeline, and the consumer. In my opinion Congress should appoint a legislative committee to recommend amendments to the Natural Gas Act. Perhaps it is not too late to consider them during the present session.

Alternative Tax Depreciation and the Regulated Utilities[1]

By CARROLL M. PERKINS*
and MARTIN T. FARRIS**

The views held by the regulatory commission on liberalized depreciation must be kept in mind by the utility in deciding how to treat depreciation for tax purposes. Benefits can accrue to the stockholder, to the ratepayer, or to a combination of both. Present ratepayers seem to benefit most if the "flow-through" method is allowed. But the company receives the greatest benefit if the commission allows normalization and includes the tax reserve in the rate base. The following analysis and tables may help you appraise your own tax depreciation setup more realistically.

Introduction

WHEN the government recognized alternative methods of calculating depreciation in the revision of the Internal Revenue Code in 1954, a storm of controversy arose over its effect on public utilities. During the past few months there have been many discussions and articles written on what the proper course of action should be with regard to these revisions.[2] The problem is primarily one of choice between several depreciation methods and since public utilities are subject to state regulatory control, this choice

[1] The background work for this paper was done by Mr. Perkins in two classes in the economics of public utilities and managerial economics taught by Dr. Farris.

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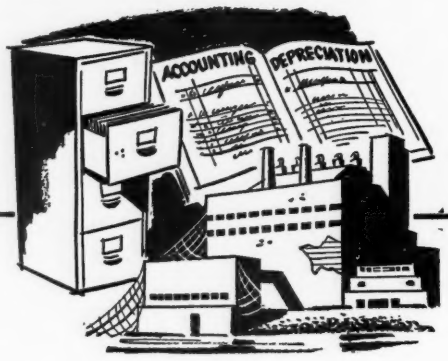
[2] "Accelerated Depreciation," by F. Warren Brooks, PUBLIC UTILITIES FORTNIGHTLY, September 26, 1957, pp. 433-441; "Liberalized Depreciation after Five Years," by Willard F. Stanley, PUBLIC UTILITIES FORTNIGHTLY, September 10, 1959, pp. 401-411; "Financial News and Comment," by Owen Ely, various issues of this journal; and others.



concerns both the regulatory commission and management whose actions will affect the rate-paying public and the stockholders. The decisions and choices of both of these groups may be based on a number of different objectives. However, in all cases, the effects of the various methods should be available so that the choices and decisions are based on the best possible knowledge of alternatives. It is the purpose of this paper to indicate some of the effects of a limited number of alternative depreciation-tax methods in the hope that such an analysis will assist in making the best possible, fully informed choice.

Various Methods of Treating Depreciation

THE past few years have seen many suggestions on how depreciation should be handled. During the course of these discussions a variety of terms have been suggested but there appear to be four procedures which are generally advanced as the proper ones. Naturally, variations of each have also appeared.

The first of these four procedures is the historic method employed by all utilities prior to 1954 of using straight-line depreciation for both the company's books and for tax purposes. Many companies will undoubtedly continue to use this method because of its simplicity and ease of understanding. For our purposes, then, it may be used as a yardstick against which to measure the effects of the other methods.

The second procedure is to use liberalized depreciation on both the company's books and for tax purposes.

The third choice is to use straight-line depreciation on the books and rapid depreciation for tax purposes, without "normalized" taxes. This is the so-called "flow-through" method whereby only actual taxes paid are used as a deduction for rate-making purposes. This is called the "flow-through" method since the increased income flows on through to the net income in the income statement.

The last procedure is popularly called "normalized" depreciation. Taxes are first calculated on the basis of straight-line depreciation, and then again calculated on the basis of liberalized depreciation. The difference in the tax figures is available temporarily to the firm as an interest-free loan. In other words, the company uses straight-line depreciation on its books and liberalized depreciation for tax purposes, and sets up a reserve of some sort for the tax savings. The purpose of normalization is not only to prevent distortion of the income statement, but also to allow the utility to enjoy the benefits of the tax deferral.

Effects of Alternative Methods Of Tax Depreciation

a. Methods illustrated.

TO illustrate the effects of the various alternatives noted above, a hypothetical set of circumstances concerning depreciation method, tax rates, and investment conditions for a regulated public utility has been assumed. First, the "sum of the year-end digits" has been used as the example of liberalized depreciation. The "declining balance" method could be used, although it is more complicated for studies of this sort, with somewhat similar results. Second, as to tax rates, a federal income tax rate of 50 per cent has been chosen for ease of calculation and an 8 per cent at 30 per cent valuation has been

chosen for a state ad valorem tax. Finally, the investment conditions have been assumed to be (1) 10 per cent allowable return, (2) interest cost at 3 per cent, (3) capitalization of bonds at 50 per cent, and (4) a ten-year service life of the investment. Under such assumed conditions, a $1,000 investment has been depreciated under the various alternative methods outlined above.

The following four tables illustrate the results of calculating depreciation under the assumed conditions.[3] In each case, the calculations have been discounted to present values and expressed as a uniform annual equivalent charge using the assumed 10 per cent rate of return and ten-year life. These "levelized" figures, therefore, represent the uniform annual charge equivalent to actual present costs of each alternative.

TABLE I (this page) considers the case where the firm uses straight-line depreciation for both its books and for tax purposes. This is the "yardstick" calculation against which the effects of the other methods may be compared.

Table II (page 459) illustrates the case when a company uses liberalized depreciation on its company books and tax books. Table III (page 461) indicates the

[3] These tables were developed after reading Paul H. Jenyes' "Liberalized Depreciation Tax Savings." (Paper read before EEI-AGA Depreciation Accounting committees, Newark, New Jersey, September 1, 1957.) (Mimeographed.)

TABLE I
STRAIGHT-LINE DEPRECIATION FOR BOTH ACCOUNTING AND TAX DEPRECIATION (SLD/SLD)

Years	*Investment*	*Assumed Return*	*Deprec.*	*Deprec. Res.*	*Deprec. Res. Cr.*	*Tax Savings*	*Tax Savings Res.*
1	1.00000	0.10000	0.10000	0	0	0	0
2	.90000	0.10000	0.10000	0.10000	0.01000	0	0
3	.80000	0.10000	0.10000	0.20000	0.02000	0	0
4	.70000	0.10000	0.10000	0.30000	0.03000	0	0
5	.60000	0.10000	0.10000	0.40000	0.04000	0	0
6	.50000	0.10000	0.10000	0.50000	0.05000	0	0
7	.40000	0.10000	0.10000	0.60000	0.06000	0	0
8	.30000	0.10000	0.10000	0.70000	0.07000	0	0
9	.20000	0.10000	0.10000	0.80000	0.08000	0	0
10	.10000	0.10000	0.10000	0.90000	0.09000	0	0
Total		1.00000	1.00000	1.00000	0.45000	0	0
Levelized	[1]0.62745	0.10000	0.10000		0.03725	0	0

Years	*Tax Savings Res. Cr.*	*Total Return & Deprec.*	*Tax Deprec.*	*Int.*	*Tax Paid*	*Adv. Tax*	*Price*
1	0	0.20000	0.10000	0.01500	0.08500	0.02400	0.30900
2	0	0.19000	0.10000	0.01350	0.07650	0.02400	0.29050
3	0	0.18000	0.10000	0.01200	0.06800	0.02400	0.27200
4	0	0.17000	0.10000	0.01050	0.05950	0.02400	0.25350
5	0	0.16000	0.10000	0.00900	0.05100	0.02400	0.23500
6	0	0.15000	0.10000	0.00750	0.04250	0.02400	0.21650
7	0	0.14000	0.10000	0.00600	0.03400	0.02400	0.19800
8	0	0.13000	0.10000	0.00450	0.02550	0.02400	0.17850
9	0	0.12000	0.10000	0.00300	0.01700	0.02400	0.16100
10	0	0.11000	0.10000	0.00150	0.00850	0.02400	0.14250
Total	0	1.55000	1.00000	0.08250	0.46750	0.24000	2.25750
Levelized	0	0.16275	0.10000	0.00941	0.05333	0.02400	0.24008

[1] The uniform annual charge equivalent to the actual present cost.

firm which uses straight-line depreciation for its company books and liberalized depreciation on its tax books, but does not normalize taxes. This method is popularly known as the flow-through method. Table IV (page 463) considers the case where the firm uses straight-line depreciation for its books and rapid depreciation for its tax books and normalizes taxes.

Table V (page 464) is a summary table noting the results of all four methods.

b. Effect on managerial decisions.

Most of the concern evidenced by management since the 1954 revision has dealt with the effects of alternative depreciation methods on rates. However, there is another factor with which management should be concerned and that is the impact of rapid depreciation on economic comparisons.

Every day management is faced with alternative ways of accomplishing given goals. Whenever a course of action is chosen, the matter of choice is implicitly involved. In matters of economic choice, management is primarily concerned with which alternate will maximize profit or minimize loss. The problem is to calculate the income tax portion of fixed charges appropriate to studies of economic choice. Such fixed charges properly include a min-

TABLE II

LIBERALIZED DEPRECIATION FOR BOTH ACCOUNTING AND TAX DEPRECIATION (SYD/SYD)

Years	*Investment*	*Assumed Return*	*Deprec.*	*Deprec. Res.*	*Deprec. Res. Cr.*	*Tax Savings*	*Tax Savings Res.*
1	1.00000	0.10000	0.18182	0	0	0	0
2	0.81818	0.10000	0.16364	0.18182	0.01818	0.00695	0
3	0.65454	0.10000	0.14545	0.34546	0.03455	0.01237	0
4	0.50909	0.10000	0.12727	0.49091	0.04909	0.01623	0
5	0.38182	0.10000	0.10909	0.61818	0.06182	0.01855	0
6	0.27273	0.10000	0.09091	0.72727	0.07273	0.01932	0
7	0.18182	0.10000	0.07273	0.81818	0.08182	0.01855	0
8	0.10909	0.10000	0.05455	0.89091	0.08909	0.01623	0
9	0.05454	0.10000	0.03636	0.94546	0.09455	0.01237	0
10	0.01818	0.10000	0.01818	0.98182	0.09818	0.00695	0
Total		1.00000	1.00000	1.00000	0.60001	0.12752	0
Levelized	[1]0.48663	0.10000	0.11408		0.05133	0.01197	

Years	*Tax Savings Res. Cr.*	*Total Return & Deprec.*	*Tax Deprec.*	*Int.*	*Tax Paid*	*Adv. Tax*	*Price*
1	0	0.28182	0.18182	0.01500	0.08500	0.02400	0.39082
2	0	0.24546	0.16364	0.01227	0.06955	0.02400	0.33901
3	0	0.21090	0.14545	0.00982	0.05563	0.02400	0.29053
4	0	0.17818	0.12727	0.00764	0.04327	0.02400	0.24545
5	0	0.14727	0.10909	0.00573	0.03245	0.02400	0.20372
6	0	0.11818	0.09091	0.00409	0.02318	0.02400	0.16536
7	0	0.09091	0.07273	0.00273	0.01545	0.02400	0.13036
8	0	0.06546	0.05455	0.00164	0.00927	0.02400	0.09873
9	0	0.04181	0.03636	0.00082	0.00463	0.02400	0.07044
10	0	0.02000	0.01818	0.00027	0.00155	0.02400	0.04555
Total	0	1.39999	1.00000	0.06001	0.33998	0.24000	1.97997
Levelized		0.16275	0.11408	0.00731	0.04136	0.02400	0.22811

[1] The uniform annual charge equivalent to the actual present cost.

Managment Must Take Its Cue from the Commission

"IF the commission should allow normalization of taxes, it then must decide whether to allow this reserve to remain in the rate base and, if so, what rate of return should the utility be allowed to make on it. When a commission allows normalization of tax savings, it is in effect allowing the utility to recover its original capital more rapidly and put it to use in some other part of the business. It takes the form of an interest-free loan from the government and thus saves the utility from a trip to the money market when it needs money for expansion. If the commission allows the utility to make any return at all on this reserve, then the utility is making more than its normal return for stockholders and the stockholder tends to get most of the benefit."

imum acceptable return to equity capital. If actual earnings are higher, then potential earnings are above the minimum acceptable. The economic choice made on such basis, therefore, maximizes the dollar profit to each share of stock. If an economic study is to indicate the best possible choice for the owners of the company, it should be based on the lowest revenue requirements regardless of regulatory view. Put another way, it should be based on the lowest revenues that will be sufficient to produce the same return on investment after adopting the proposal.[4]

[4] *Ibid.*

TABLE V reveals that the method which results in the lowest "levelized" total fixed costs (lowest uniform annual charge equivalent to the actual present cost), including an acceptable return to equity, is Method Number III, or the so-called "flow-through" method. This procedure calls for using straight-line depreciation for the company's books and liberal depreciation for tax purposes, with no reserve being set up for the savings. The savings "flow through" to the income statement and as such are subject to review by regulatory bodies as increased return to investors. The point is that for economic

comparisons of alternatives, this is the proper method of tax depreciation accounting to use. This method would indicate the "bare bones" cost of capital when comparing alternatives.

Should the regulatory bodies be inclined towards any other tax depreciation method, then any alternative chosen on the basis of flow through would be even better off. This is readily ascertainable by a glance at Table V—any of the other alternatives allow a higher "levelized" fixed charge. If the alternative chosen is acceptable using the flow-through method, it would still be acceptable on any of the other depreciation alternatives.

c. Effect on the ratepayer and the stockholder.

DEPENDING upon how the regulatory bodies and management choose to handle tax depreciation, the tax benefits may be extended to the stockholder, to the ratepayer, or to some combination of both. That the question is far from settled is evidenced by the opposite views expressed by many commissions.

In this regard, the regulatory bodies are primarily faced with four decisions concerning liberalized depreciation for tax purposes. These are:

1. Whether to allow normalization.

TABLE III

STRAIGHT-LINE DEPRECIATION FOR ACCOUNTING, LIBERALIZED DEPRECIATION FOR TAX DEPRECIATION
(SLD/SYD NOT NORMALIZED)

Years	*Investment*	*Assumed Return*	*Deprec.*	*Deprec. Res.*	*Deprec. Res. Cr.*	*Tax Savings*	*Tax Savings Res.*
1	1.00000	0.10000	0.10000	0	0	0.08182	0
2	.90000	0.10000	0.10000	0.10000	0.01000	0.06364	0
3	.80000	0.10000	0.10000	0.20000	0.02000	0.04545	0
4	.70000	0.10000	0.10000	0.30000	0.03000	0.02727	0
5	.60000	0.10000	0.10000	0.40000	0.04000	0.00909	0
6	.50000	0.10000	0.10000	0.50000	0.05000	(0.00909)	0
7	.40000	0.10000	0.10000	0.60000	0.06000	(0.02727)	0
8	.30000	0.10000	0.10000	0.70000	0.07000	(0.04545)	0
9	.20000	0.10000	0.10000	0.80000	0.08000	(0.06364)	0
10	.10000	0.10000	0.10000	0.90000	0.09000	(0.08182)	0
Total			1.00000	1.00000	0.45000	0	0
Levelized	[1]0.62745	0.10000	0.10000		0.03725	0.01408	

Years	*Tax Savings Res. Cr.*	*Total Return & Deprec.*	*Tax Deprec.*	*Int.*	*Tax Paid*	*Adv. Tax*	*Price*
1	0	0.20000	0.18182	0.01500	0.00318	0.02400	0.22718
2	0	0.19000	0.16364	0.01350	0.01286	0.02400	0.22686
3	0	0.18000	0.14545	0.01200	0.02255	0.02400	0.22655
4	0	0.17000	0.12727	0.01050	0.03223	0.02400	0.22623
5	0	0.16000	0.10909	0.00900	0.04191	0.02400	0.22591
6	0	0.15000	0.09091	0.00750	0.05159	0.02400	0.22559
7	0	0.14000	0.07273	0.00600	0.06127	0.02400	0.22527
8	0	0.13000	0.05455	0.00450	0.07095	0.02400	0.22495
9	0	0.12000	0.03636	0.00300	0.08064	0.02400	0.22464
10	0	0.11000	0.01818	0.00150	0.09032	0.02400	0.22432
Total	0	1.55000	1.00000	0.08250	0.46750	0.24000	2.25750
Levelized		0.16275	0.11408	0.00941	0.03926	0.02400	0.22601

[1] The uniform annual charge equivalent to the actual present cost.

2. How to treat the tax reserve if they do allow it.

3. Whether to allow only actual taxes paid.

4. Whether to allow only liberalized depreciation for rate making as well as on the books.

Management is then faced with the following decisions:

1. Whether to use liberalized depreciation;

2. Whether to normalize tax savings.[5]

Management Looks to the Commission

MANAGEMENT'S decision on how to treat depreciation for tax purposes, of course, depends a great deal upon how the regulatory body chooses to view liberalized depreciation. However, to make the proper decision for their stockholders, management must be aware of the effect of the various methods which the regulatory bodies might order.

[5] These choices are outlined in: Management Newsletter, *Electrical World*, February 9, 1959. It should be noted, however, that a strong case can be made that the social responsibility of management and commissions allows no choice. See: "The Duty of a Public Utility to Reduce Its Income Tax Liability by Using Accelerated Depreciation," by Ben W. Lewis, *Land Economics* (May, 1959), pp. 104-114.

If the commission should allow normalization of taxes, it then must decide whether to allow this reserve to remain in the rate base and, if so, what rate of return should the utility be allowed to make on it. When a commission allows normalization of tax savings, it is in effect allowing the utility to recover its original capital more rapidly and put it to use in some other part of the business. It takes the form of an interest-free loan from the government and thus saves the utility from a trip to the money market when it needs money for expansion. If the commission allows the utility to make any return at all on this reserve, then the utility is making more than its normal return for stockholders and the stockholder tends to get most of the benefit.

IF the commission does not allow this reserve to be in the rate base, which, in effect, lowers the return on the reserve to zero, then the utility obtains the benefit of an interest-free loan and so does the ratepayer. The stockholder benefits because his stock is not further diluted by more indebtedness and the ratepayer benefits because there are no charges in the rate for this added capital.

Some Facts to Consider

"ONCE the regulatory body decides how liberalized depreciation should be handled, then management can intelligently make its decision as to whether to use liberalized depreciation or not for tax purposes and, if so, whether or not to normalize the tax savings, assuming the commission so allows. A glance at the tables reveals that the use of liberalized depreciation for tax purposes is beneficial to the stockholders in the case of normalized taxes. Both the utility and the ratepayer can benefit from this method of treatment. However, the benefit to the stockholder tends to increase if a rate of return can be earned on the tax reserve, and this benefit attains a maximum as the rate of return approaches the normal rate of return."

If the commission should require a negative interest factor on the tax reserve when determining rates, based on the going interest rate for risk-free capital, then again the customer and stockholders both benefit.[6] The ratepayer, in effect, gets paid the interest on the government loan to the utility through lower rates. The stockholder benefits by getting low-cost capital without changing the capitalization ratio.

If the regulatory body allows straight-line depreciation on the books and liberalized depreciation for rates but insists that only actual taxes paid will be considered for rates, then all benefits tend to "flow through" to the ratepayer. The stockholder's only interest is that by so doing, rates might be reduced and sales thereby stimulated. This is a somewhat nebulous benefit as it very likely cannot be measured. Table V reveals this method produces the lowest "levelized" rate.

IF the regulatory body should insist upon the utilities using liberalized depreciation on their books as well as for rates, both the ratepayer and the stockholder benefit eventually. However, neither the ratepayer nor the stockholder benefit as much from this method as through nor-

[6] Management Newsletter, *Electrical World*, February 10, 1958.

TABLE IV

STRAIGHT-LINE DEPRECIATION FOR ACCOUNTING, LIBERALIZED DEPRECIATION FOR TAX DEPRECIATION (SLD/SYD, NORMALIZED)

Years	*Investment*	*Assumed Return*	*Deprec.*	*Deprec. Res.*	*Deprec. Res. Cr.*	*Tax Savings*	*Tax Savings Res.*
1	1.00000	0.10000	0.10000	0	0	0.04091	0
2	0.85909	0.10000	0.10000	0.10000	0.01000	0.03182	0.04091
3	0.72727	0.10000	0.10000	0.20000	0.02000	0.02272	0.07273
4	0.60455	0.10000	0.10000	0.30000	0.03000	0.01364	0.09545
5	0.49091	0.10000	0.10000	0.40000	0.04000	0.00455	0.10909
6	0.38636	0.10000	0.10000	0.50000	0.05000	(0.00455)	0.11364
7	0.29091	0.10000	0.10000	0.60000	0.06000	(0.01364)	0.10909
8	0.20455	0.10000	0.10000	0.70000	0.07000	(0.02272)	0.09545
9	0.12727	0.10000	0.10000	0.80000	0.08000	(0.03182)	0.07273
10	0.05909	0.10000	0.10000	0.90000	0.09000	(0.04091)	0.04091
Total			1.00000	1.00000	0.45000	0	0
Levelized	0.55704	0.10000	0.10000		0.03725	0.00704	

Years	*Tax Savings Res. Cr.*	*Total Return & Deprec.*	*Tax Deprec.*	*Int.*	*Tax Paid*	*Adv. Tax*	*Price*
1	0	0.24091	0.18182	0.01500	0.04409	0.02400	0.30900
2	0.00409	0.21773	0.16364	0.01289	0.04120	0.02400	0.28293
3	0.00727	0.19545	0.14545	0.01091	0.03909	0.02400	0.25854
4	0.00954	0.17410	0.12727	0.00907	0.03776	0.02400	0.23586
5	0.01091	0.15364	0.10909	0.00736	0.03719	0.02400	0.21483
6	0.01136	0.13409	0.09091	0.00580	0.03738	0.02400	0.19547
7	0.01091	0.11545	0.07273	0.00436	0.03836	0.02400	0.17781
8	0.00954	0.09774	0.05455	0.00307	0.04012	0.02400	0.16186
9	0.00727	0.08091	0.03636	0.00191	0.04264	0.02400	0.14755
10	0.00409	0.06500	0.01818	0.00087	0.04595	0.02400	0.13493
Total		1.47502	1.00000	0.07124	0.40378	0.24000	2.11878
Levelized	0.00704	0.16275	0.11408	0.00836	0.04031	0.02400	0.22706

[1] The uniform annual charge equivalent to the actual present cost.

TABLE V
SUMMARY OF ALTERNATIVE METHODS

Method	Capital Recovery Factor		Tax		Interest		Total Fixed Costs Incl. Return[1]		Levelized Equity
	Total	Levelized	Total	Levelized	Total	Levelized	Total	Levelized	
1. SLD/SLD	1.55000	0.16275	0.46750	0.05333	0.08250	0.00941	2.25750	0.24008	0.62745
2. SYD/SYD	1,39999	0.16275	0.33998	0.04136	0.06001	0.00731	1.97997	0.22811	0.48663
3. SLD/SYD Not normalized	1.55000	0.16275	0.46750	0.03296	0.08250	0.00941	2.25750	0.22601	0.62745
4. SLD/SYD Normalized	1.47502	0.16275	0.40378	0.04031	0.07124	0.00836	2.11878	0.22706	0.55704

[1] For regulated utilities this corresponds to price, exclusive of operations and maintenance expenses.

malization, and it has not been considered too seriously except by politicians bent more upon oratory than common sense.[7] Its main benefit to the stockholder is the recovery of capital at a faster rate than the straight-line method, thereby allowing investment elsewhere in the business. The ratepayer gains through a lower "levelized" rate over the years. However, the initial rates are extremely high as Table II reveals. It would appear the commissions would be quick to reject this method.

It is interesting to note that this method, along with "normalization," reduces the actual dollars of taxes paid over the lifetime of the investment. The other methods result in the same number of dollars of taxes—only the timing of the payments is changed.

[7] *Ibid.*, November 3, 1958.

Once the regulatory body decides how liberalized depreciation should be handled, then management can intelligently make its decision as to whether to use liberalized depreciation or not for tax purposes and, if so, whether or not to normalize the tax savings, assuming the commission so allows. A glance at the tables reveals that the use of liberalized depreciation for tax purposes is beneficial to the stockholders in the case of normalized taxes. Both the utility and the ratepayer can benefit from this method of treatment. However, the benefit to the stockholder tends to increase if a rate of return can be earned on the tax reserve, and this benefit attains a maximum as the rate of return approaches the normal rate of return.

Conversely, the ratepayer's benefits tend to decrease as the allowable rate of return on the tax reserve is increased, tending to disappear when the rate of return

equals the normal rate of return. Should the regulatory body require tax savings to flow through to the income statement, the benefits are mostly extended to the ratepayer since the commission will be likely to order a rate reduction. However, a utility faced with the necessity of going to the commission for a rate increase could possibly forestall the increase by going to liberalized depreciation under the flow-through method. It could possibly even benefit with a rate reduction if sales were to increase as a result.

Conclusions

First, the tables seem to support the theory that for economic comparisons management would be wise in using the so-called flow-through method when determining the proper income tax portion of fixed charges for such comparison. Since this method indicates the lowest smooth annual charge for tax purposes, any alternate chosen after comparing on this basis should be equally as good a choice if the utility be required by the commission to use any other method of tax depreciation.

Second, depending upon how the regulatory body chooses to treat liberalized tax depreciation, the benefits can accrue to the stockholder of the utility, to the ratepayer, or to some combination of both. The tables indicate that present ratepayers would benefit the most if the flow-through method is allowed. By contrast, the utility will obtain the greatest benefit if the regulatory body allows normalization and includes the tax reserve in the rate base. The benefits tend to be more equally divided between ratepayer and stockholder as allowed earnings on this tax reserve approach zero.

The tables developed herein do lay to rest some erroneous ideas on this subject. Many people believe that the actual dollars of taxes paid are the same, when a utility takes advantage of liberalized depreciation, as they are with straight-line depreciation. The tables indicate this is not necessarily true. For both Case II and Case IV, the actual dollars of taxes paid are less than are paid in Case I and Case III.

This comes about because investment is replaced more rapidly by either the larger depreciation charge in Case II or the normalized tax reserve in Case IV. Consequently, the plant produces less taxable income and fewer tax dollars over the life of the facilities. It is because of this rapid replacement of equity that the number of tax dollars collected is smaller; therefore, liberalized depreciation for tax purposes can result in less tax dollars being collected.

Finally, it appears the benefits of liberalized depreciation to the utility, to the ratepayer, and to the stockholder depend entirely upon the outlook of the regulatory body having jurisdiction. These decisions may be extremely important to all groups concerned and the effect of the particular method chosen should be carefully weighed.

OUT OF THE MAILBAG

Objections to the Pahle Article

It is regrettable that Mr. Joseph R. Pahle, in his article "Socialism and Crab Grass" in your February 4th issue, accompanied his praise of electric service in the Tennessee valley and his excellent kernel of advice to privately owned public utilities with so much misunderstanding and inaccuracy about TVA activities and public policy.

We appreciate his conclusion that electric service in the valley has been conducted by TVA and the distributors (he cites particularly the Chattanooga Electric Power Board) efficiently, with low costs and high use, and with excellent customer service and customer relations. He recognizes the results as so beneficial to the region that he recommends that privately owned utilities follow the TVA example, including the suggestion that they reduce their rates. Thus Mr. Pahle, perhaps unwittingly, has acknowledged and espoused one of the major lessons which the nation can and should learn from the TVA electric power program; namely, that electric power is such a tremendous force for economic growth and improved living that it should be available everywhere and to everyone at the lowest possible cost and in the greatest possible abundance.

Since Mr. Pahle recognizes and even recommends this basic aim, it is apparent that many of his criticisms—such as his complaints about excessive load-building costs and too many employees—fall of their own weight. But his article is also replete with errors of fact, all of which perhaps should be corrected; however, we will mention only a few. TVA's fertilizer is not, and has not been for years, "free." Trees are not furnished "free" but are sold to the landowners who use them not for "landscaping" but to reclaim thousands of acres of eroded lands and make them once again a productive part of the region's economic base. The "wonderful free" recreational facilities, now valued at more than $82 million, were not provided by TVA but by states, counties, municipalities, private enterprise, and individuals.

Mr. Pahle should consider, before he makes the charge of "present-day 'brain-washing sessions' conducted by the TVA for its employees, where they are instructed about what to believe and preach, and how to vote for the 'protection of the TVA and their jobs,'" that the TVA Act provides that "In the appointment of officials and the selection of employees . . . and in the promotion of any such employees or officials, no political test or qualifications shall be permitted or given consideration." The penalty is removal from office of any board member or employee found guilty of violating this provision.

Mr. Pahle is on no more sound ground when he claims the Chattanooga Power Board, or any other power distributor in the region, is "an 'authority' unto itself, unregulated, uncontrolled, and unpoliced," with the power to double or quadruple electric rates at will. Despite the lack of a formal "regulatory" body, which Mr. Pahle deplores, the interests of the consumers are well protected. The existing rates were set in accordance with the mandate of the Congress that power be sold at the lowest possible rates and in such a way as to foster increased use, and the board of directors of TVA, appointed by the President with the advice and consent of the Senate, is responsible for seeing that the congressional purposes are carried out. Effective regulation in the consumers' interest is provided through the wholesale power contracts between TVA and the distributors in which the rates to be charged are agreed upon. The rates cannot be raised without the consent of TVA. And, as a matter of record, the trend in rates to consumers has been down, not up.

In so far as Mr. Pahle's assumption that TVA can be equated with "Socialism" is concerned, we agree, as you ably point out in your "Pages with the Editors," the term "Socialism" has different meanings in different contexts and to different people, and furthermore its meanings seem to change. Therefore, there seems to be little profit in a semantic debate on that point.

We are glad to see Mr. Pahle's acceptance of the Tennessee valley demonstration in electric service, despite his unfamiliarity with TVA's administrative management and many phases of its activities.

—A. R. JONES,
Acting chairman, Tennessee Valley Authority.

More about the Pahle Article

THE general thesis of Mr. Joseph R. Pahle in his article, "Socialism and Crab Grass" in the February 4th FORTNIGHTLY, is that the best way for private utility companies to meet the challenge of the publicly owned systems is to do a better job themselves. With this I agree. However, Mr. Pahle's article is full of mistakes of fact with respect to the Tennessee Valley Authority and the Chattanooga Electric Power Board. I shall not attempt to speak for the Chattanooga Electric Power Board except to say that readers would be well advised to check on any of the factual statements before giving them credit. As to TVA, Mr. Pahle describes it as a wasteful and inefficient organization which curries public favor by handouts. I served as TVA's general counsel for many years, and should like to comment on Mr. Pahle's statements item by item.

Item: TVA gives away "free trees for landscaping." The fact is that TVA has never provided trees for landscaping. Nor, at the present time, are TVA tree seedlings provided free of charge to anyone. For a number of years TVA-produced seedlings were supplied to landowners through their local agricultural and forestry agencies, for reforesting eroded land in a comprehensive program of watershed protection. Since July, 1957, TVA seedlings have been sold to owners of forest land through state agencies at the same prices charged by the states for seedlings produced in their own nurseries.

ITEM: TVA gives away "free fertilizer." TVA produces experimental fertilizers. Most of it is sold to distributors, manufacturers, and mixers, for use in educational programs through their dealers. Materials sold in this distributor demonstration program are priced slightly less than commercial fertilizers as an incentive to try new products and improved ways of using fertilizers.

A relatively small part of TVA's fertilizer output is used in farm test demonstrations, both as a means of spreading information among farmers as to improved fertilizers and their uses and as a means of collecting data on the results of their use in practical farm applications. In fiscal year 1959, according to TVA's annual report, farmers reimbursed TVA for 57 per cent of the wholesale price of the fertilizers they received, in addition to paying freight and local handling charges. The price discount is for the purpose of assisting co-operating farmers in making adjustments in farming practices recommended by extension services and for the services performed by the farmers in connection with the program, including the maintenance of detailed records and keeping their farms open to inspection by other farmers.

The only fertilizer for which TVA is not paid is a few hundred tons supplied to the state agricultural experiment stations for research projects.

ITEM: "While the TVA has the newest, finest, and most efficient generating facilities, any efficiency advantage so achieved is lost by its huge number of employees, which is a public disgrace. It employs more people to do less work than any business I have ever heard of." Even the casual reader may wonder how an organization as slack as that pictured by Mr. Pahle can achieve "the newest, finest, and most efficient generating facilities," especially if he is aware that TVA does its own construction work. Mr. Pahle's tribute to the quality of electric service in Chattanooga is also hard to reconcile with this picture of shiftless and trifling employees. Most utility executives know that TVA's unit costs in both operation and construction compare favorably with private industry, and in their testimony before congressional committees opposing various TVA

measures they have conceded that TVA is a hard-working and well-managed organization.

ITEM: "Its policies on vacations and 'sick-or-not' sick leaves stand as evidence of the fact that it has more employees than it has room for, all at one time." It is surprising that Mr. Pahle, living in a community where there are so many TVA employees, should be ignorant of the fact that TVA employees are covered by the general federal vacation and sick leave laws. It is these laws and not TVA "policies" which are controlling. Under the law, sick leave is available only for illness. I suppose there will always be some abuse of sick leave privileges, but in my own observation there was very little. I used only a few weeks of sick leave in twenty-four years, all of it when I was sick, and my record was by no means exceptional.

Item: TVA conducts "brain-washing sessions" for its employees in which employees are instructed "how to vote for the 'protection of the TVA and their jobs.'" This is pure invention. Since all three of the present TVA directors are Eisenhower appointees, it may be assumed that if such brain-washing sessions were held employees would be instructed to vote the straight Republican ticket. As a matter of fact, the Hatch Act prohibits partisan political activity and it is rigorously enforced in TVA.

ITEM: "While the free enterprise utility is policed, regulated, and controlled by an outside 'referee' for the protection of the customer, public power in Chattanooga is an 'authority' unto itself, unregulated, uncontrolled, and unpoliced by any outside, impartial agency, such as a public utility commission. Those in its franchise area are at its mercy." This is perhaps an argumentative statement of opinion rather than a simple error of fact, but Mr. Pahle fails to mention that rates, nondiscrimination among consumers, and various other features of the operations of TVA distributors, including the Chattanooga Electric Power Board, are covered in their power contracts with TVA. Most consumers in the TVA area seem to believe, not without logic, that their interests are at least as well protected by state and federal agencies created for their benefit and responsible directly to the legislative bodies which created them as they would be by the private utilities under commission regulation.

MR. PAHLE hurts his case when he fails to check his facts and passes along uncritically the misrepresentations bandied about by some irresponsible TVA critics. Neither is it helpful for him to attempt to ridicule the conservation and resource development phases of the TVA program. They have been studied and emulated the world over and should be a source of pride and satisfaction to all Americans.

—JOSEPH C. SWIDLER,
Attorney at law, Nashville, Tennessee.

For Judicial Restraint

IN regard to a recommendation made by the Honorable Everett C. McKeage in your issue of September 24, 1959, and with all due respect for Mr. McKeage, his position, his article, and his excellent thinking, I should like to add a word of comment to his recommendation. I refer to his call for a "political constitutional review council" to review and exercise jurisdiction over "frankly political" decisions of the Supreme Court. This sort of council is, at present, entirely unnecessary, I think, because the constitutional powers of the Congress to impeach and convict the "Mr. Justices" who consistently refuse to exercise restraint of any kind (and thereby lay themselves open to well-founded accusations of guilt of high crimes and misdemeanors) have never been fully (nor properly) utilized. Their effects, therefore, are and should be termed "unknown" rather than "wholly unsuited." Similarly unknown are the exact effects of a "review council." Let's use the means presently at hand and see what happens before we institute additional means and try them to see what happens.

Looking further, it seems that such a council could inevitably do only one of two things anyway. It might, if it were elected and therefore truly "political," effectively eliminate the power, prestige, and traditional judicial posture of the high court. Was this intended by Mr. McKeage? I think not, but this would be the result. On the other hand, if it were not subject to answer to the people, it would not be truly "political," and would,

therefore, merely supplant the present Supreme Court, creating by that supplanting another Supreme Court and a state that is even closer to anarchy than is our present state after two and one-half decades of terribly unwise, terribly unjudicial, terribly political, and terribly damaging Supreme Court decisions. Was this intended by Mr. McKeage? I *hope* not, but this would be the result.

THEN comes the problem of who would have the authority to choose which Supreme Court decisions were "frankly political" and which should be allowed to stand unreviewed by the council. The ludicrous implications involved here are so obvious and the built-in provisions for anarchy are so easy to see that I shall say no more about them.

No, we are not far enough down the road to anarchy for this solution to be tried yet. Yet I think it is an alarming signal of how far we have gone, in part because of completely unrestrained and unconstitutional Supreme Court decisions, that this solution has even been voiced. Nor should one think that the use of impeachment powers by the House for acceptable reasons, would cause anarchy by destroying our judicial system. On the contrary, it appears more and more that the *only* way the present Supreme Court will ever begin to preserve our judicial system is by using restraint in its decisions or will ever return to playing the game by the wise rules laid out in the federal Constitution, subject to change by the due process of amendment, is for the Congress to use those rules to remove from the bench a few of those justices who have been more flagrant in their violation of these rules. If it does not, then I think that the people will in time demand that it do so—if, indeed, the people at that time have any voice left.

IF I am a judge and *clearly* and *frankly* miscarry justice and thereby commit high crimes and misdemeanors, then I should be impeached and removed and my successor should be given the opportunity to undo my errors through future decisions. Since, even as a judge, I am obviously *not* God or even close to being Him, I should be given a *wide latitude* for slight miscarriages; the Constitution provides for this. But when I go beyond the bounds of all sane reason, there should be no question as to the course to follow. Why impeach a madman's *decisions* and leave the madman to make more such decisions, some of which might be allowed to stand?

With our present sad state of affairs in which there is no courage in the Congress nor, it seems, in other leaders concerned with our very real problem of having a set of Supreme Court justices who often give the impression of being worthless and unprincipled, there is but one consolation: The justices are themselves a part of the population whose welfare they so readily spurn and, as such, will share the results of their imprudence.

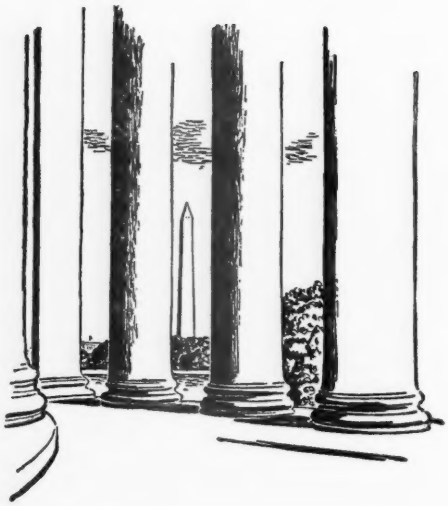
For constitutional government,

—L. E. SHEPPARD, JR.,
Agricultural engineer,
Corpus Christi, Texas.

Mr. Pahle's Reaction

EDITOR'S NOTE: After an opportunity to read Mr. Swidler's foregoing letter, Mr. Pahle, in a letter to the editors, stated that he did not think anything would be gained by engaging in any debate on the several points of controversy covered, particularly as to matters of opinion or degree or individual impression. But he did point out that "While writing my article, I personally obtained through the TVA 100 pine seedlings for the expressed purpose of landscaping. These trees presently serve as a 'fence' along my rear property line." Mr. Pahle observed that if farmers were reimbursed for 57 per cent of the wholesale price of fertilizer, then it must follow that "43 per cent was not paid for, and was free."

Mr. Pahle gave as his own opinion that conservation and resource development might be better taken care of by the existing Departments of Agriculture and Interior of the federal government, rather than the additional activity of a federal power authority.



Washington and the Utilities

Public Power Planks for '60?

WHEN Democratic Chairman Paul Butler announced earlier this month that he was arranging a series of so-called "preconvention hearings" in a half-dozen or more cities during the coming spring, it should have served to remind folks in the electric power field that some preconvention planning on the subject of federal government power activities has already been going on. There was that three-day meeting at Albuquerque, New Mexico, billed as the Western States Democratic Conference but at which C. Girard Davidson and his Natural Resources Committee seemed to provide most of the agenda.

Davidson, Assistant Secretary of Interior under the Truman administration and Democratic national committeeman from Oregon, outlined a program which was endorsed by Democratic leaders in 13 western states, with the definite expectation that it will provide various planks for the national Democratic platform at the national convention in Los Angeles next July. What is more, Davidson, when asked if he thought all present Democratic candidates would accept such a program, answered that he did. He also added significantly, "We would not nominate a candidate who would not support the program that we propose."

The main feature of the formal resolution adopted by the Albuquerque meeting proposed the development of "regional giant power systems," utilizing all the electricity sources, including nuclear. The resolution called for the establishment in the Pacific Northwest of a "regional agency to enable full, comprehensive development of the Columbia river and to provide the region's utilities with low-cost wholesale power."

AN "energy subgroup" of Davidson's committee offered the most specific recommendations, as compared with some compromises and generalizations in the fields of water, public lands, conservation and recreation, pollution, and minerals.

Harry Wall of Lewiston, Idaho's national committeeman, is chairman of the energy subgroup, but he was not present at the conference because of illness. Primary work on the energy report advocating regional public development of electric power was done by Gus Norwood, Vancouver, Washington, executive secretary

of the Pacific Northwest Public Power Association and committee consultant.

THE energy report put the conference in support of federal construction of atomic power plants and pledged "protection of this atomic investment as part of the public domain." Davidson said the report of the Natural Resources Committee will be presented to the Platform Committee at the Democratic national convention at Los Angeles in July. He added that "the background papers will serve as a Democratic handbook for the candidates in the West," and "will be a guide for the new Democratic administration which will take office in 1961." The energy report said:

> We will adopt policies on utility financing and regulation which will enable the country to take full advantage of giant power technology, and assure the American consumer the benefits of modern and efficient low-cost electric power supply.

It added that "specifically" the Democratic party would:

> Foster development of efficient regional giant power systems from all sources, hydro, thermal, and nuclear, with utility responsibility to supply low-cost electricity at wholesale to all retail electric systems—public, private, and co-operative.
>
> Provide full support for "yardstick" competition in the otherwise monopolistic power industry, through continuation of low interest rate loans to rural electric co-operatives for distribution, transmission, and generating facilities, enforecement of the antimonopoly preference clause in marketing federal power, and co-operation with local public and co-operative systems in utilizing federal transmission facilities to provide efficient power supply . . .

The report said the party would "support the highly successful conservation and electric power programs of the TVA," and support research and development in the field of conventional fuels, including oil shale deposits.

IN preliminary remarks prior to adoption of the full report of the committee, Davidson said the "Eisenhower-Nixon record in the resources field has been a pitiable tale of delay, indifference, administrative sabotage, and 'giveaway' bordering on corruption."

He cited what he called the "Hell's Canyon fiasco," the Al Serena "giveaway of millions of board feet of timber under the thin disguise of a mining claim," the "corrupt" Dixon-Yates "scheme to attack the TVA," the granting of oil leases in wild-life and game refuges, failure to take the lead in pollution abatement programs, "pigeonholing by the administration of its own recreation programs, false economy in financing timber-access roads," and "penny pinching in research on all resource problems."

Davidson proposed the creation of a council of natural resources advisers to be appointed by the President to aid him in preparing an annual report on natural resources, the report to be reviewed by a special joint congressional committee. He would finance dam building and what he called "self-supporting resource programs," with a capital budget and "other recognized business methods." In a preamble to its report, the committee said:

> We favor the best use of our natural resources. Generally, this means adoption of the multiple-purpose principle to

achieve full development. Best use in cases may be a single use.

A "TRANSPORTATION COMMITTEE" of the Western States Conference called on the "federal government to formulate an incentive program specifically related to all forms of transportation to provide for the development of transportation and terminal facilities, capital investment in real and personal assets for future growth and needs of the West, together with a realistic modernization and revision of tax structures as they relate to the transportation industry."

High Mountain Sheep Dam Hearings

JUST prior to scheduled hearings before the FPC in Washington, the High Mountain Sheep project got off to a good start in Salem, Oregon, on March 5th when it was unanimously endorsed by the Oregon Water Resources Board. This was a formal order declaring the Pacific Northwest Power Company's plan for the Middle Snake river development would be "in the public interest." The FPC hearings, originally slated for March 21st, were delayed following the filing of an application for a Nez Perce project license by 13 Washington public utility districts, which asked consolidation of FPC hearings with the High Mountain Sheep dam project application.

A policy statement accompanying the order, which directs the Oregon Hydroelectric Commission to issue a license for the project, said the "Middle Snake should be developed at the earliest opportunity to meet the anticipated energy requirements of the state of Oregon." Utilization of these waters of the Snake and the Imnaha rivers for power production, flood control, recreation, navigation, and fish life will represent the highest public benefit to the state, it was said.

The board held lengthly public hearings and said its engineering staff had compared the investor-owned utility companies' proposal for the High Mountain Sheep system with one including Nez Perce, which is advocated for federal development by public power partisans. The board stated: "The High Mountain Sheep system would produce greater prime energy and greater dependable capacity."

NARUC Gas Rate Group

CRAWFORD PILCHER, Georgia Public Service commissioner, has been named by the National Association of Railroad and Utilities Commissioners to be chairman of a committee of eleven to make a nation-wide study of natural gas rate increases. Pilcher and the Georgia commission were prime movers.

Pilcher declared that "there is no formula for the FPC to hear any of these cases. The FPC has got to blaze a trail for dealing with the producers." At present the FPC has about 3,000 rate hike applications pending before it, where the increases already are in effect.

Representative Hechler (Democrat, West Virginia) has introduced the latest bill (HR 10753) to prevent gas rate increases not expressly authorized by the FPC. It is similar in pattern to an earlier measure (HR 10309) by Representative Brock (Democrat, Nebraska) introduced last month. Hechler, a critic of FPC regulation of gas, said that within a short time he would introduce a resolution calling for a congressional investigation of "this intolerable and chaotic situation." HR 10573 has been referred to the Committee on Interstate and Foreign Commerce.

Telephone and Telegraph

New FCC Chairman Favors "Payola" Crackdown

PRESIDENT Eisenhower's appointment of Frederick W. Ford to serve as chairman of the Federal Communications Commission is not expected to cause any major changes in the operation of the commission. He is known, however, to favor a clear definition of "payola" and then crack down on the practice. His predecessor, former Chairman John C. Doerfer, aroused some criticism when he tended to discount the importance of the "payola" scandal.

The new chairman of the FCC was appointed as commissioner in 1957. He has a background of nearly a score of years of legal, regulatory, and administrative service with various government agencies. Prior to his serving as an FCC commissioner, he had seen service in the Justice Department and also on the FCC legal staff.

Chairman Ford was born in Bluefield, West Virginia, and received his college and legal education from West Virginia University (AB, '31; LLB, '34). He practiced law in Clarksburg before entering government service with the old Office of Price Administration in 1942. During World War II he became an Air Force Major and returned to the Office of Price Administration in 1946 to become a hearing commissioner. He first joined the FCC legal staff in 1947, and then temporarily switched to the Justice Department in 1953 where he served as Assistant Deputy Attorney General. He came back to the FCC at the top level with a full term appointment from President Eisenhower in 1957 to succeed former FCC Commissioner George C. McConnaughey. His present term expires June 30, 1964.

DOERFER's resignation as chairman of the commission was to "avoid possible embarrassment" to the Eisenhower administration. The controversy over Doerfer was touched off when he testified before the House Subcommittee on Legislative Oversight that he had taken an Atlantic cruise with the owner of several radio and TV stations. He maintained, however, that there was nothing improper in his action and that such friendships "do not imperil the integrity of either the government official or the member of industry." President Eisenhower, in a letter accepting the resignation, told Doerfer that he had served the commission "tirelessly, loyally, effectively—and with dedication." Not even his critics questioned Doerfer's personal integrity, ability, or accomplishments.

Prior to his resignation Doerfer had been asked by Subcommittee Chairman Harris (Democrat, Arkansas) to reveal how many radio and TV stations which had filed sworn statements had reported that their employees had received under-the-table payments for playing certain records. Doerfer would not specify the number, but said that more than half of the stations reported they received free records from manufacturers or distributors. He revealed that he had sent a letter to the Justice Department in which he said that four Boston area radio stations and one in New Orleans "may have had financial arrangements with various record distributing companies which may be contrary" to a section of the Communications Act. The section of the act to which he referred prohibits broadcasting of paid material without announcing the sponsor.

Representative Moss (Democrat, California), just prior to the resignation, seems to have summed up the criticism of Doerfer when he referred to his acceptance of questionable hospitality and stated that he was a "reluctant regulator" of the broadcasting industry.

Doerfer had been appointed to the commission in 1953 and President Eisenhower then named him chairman in 1957. His four-year term would have expired in 1961.

The Doerfer resignation is the second FCC resignation due to the House Subcommittee on Legislative Oversight. The first was Richard A. Mack, who resigned from the commission when the subcommittee questioned certain gifts and loans from a Miami attorney.

New Interest in Pay TV

LARGE-SCALE tests being conducted by the International Telemeter Company in a suburb of Toronto, Canada, have aroused new interest in pay TV. The renewed interest has extended to the United States where Zenith Radio Corporation and "another large company" will ask that the Federal Communications Commission grant permission to test subscription TV in an undisclosed area of the nation.

The Canadian test is being conducted in Etobicoke, a suburb of the city of Toronto. At the present time 3,000 subscribers have paid $5 to have coin boxes installed on their TV sets. Three channels are offering first run movies and top sporting events at a cost of $1 per show.

The greatest innovation, from the viewer's standpoint, is the absence of any sort of commercials. This, of course, improves the viewing of dramatic productions, which are now fragmented by frequent commercial breaks.

THE programs are transmitted over cable and the TV set will continue to bring in standard TV broadcasts. Company officials believe that the next step will be expansion into Long Island, Detroit, or possibly Los Angeles. In effect, this Canadian system is a closed circuit method of transmission.

Zenith Radio Corporation, in announcing that it will ask the Federal Communications Commission for permission to test pay TV, noted that its proposed system would also be commercial free. However, the major difference will be that the Zenith system will not use cables for transmission. The Zenith system would broadcast a "scrambled" TV picture which would come into focus when the correct amount of money is deposited in an attached coin box.

In this country the Federal Communications Commission and Congress have not voiced any open opposition to pay TV.

Financial News and Comment

By OWEN ELY

Bull Market Over—or Merely Resting?

RECENTLY, adherents of the Dow theory reported that "the rails had confirmed the industrials" and the *New York Herald Tribune* headlined "Bull Mart Ends Ten-year Reign." But according to *Time,* anyone following the Dow theory's buy and sell signals since 1929 would have been wrong 15 times out of 24. Rails now make up less than 5 per cent of the value of listed stocks compared with 50 per cent at the time the theory was evolved by Charles H. Dow back in the 1880's.

Other observers feel that the recent 13 per cent drop in the Dow industrial average is merely a "healthy reaction," similar to that of 1957 when the averages dropped 100 points or 19 per cent (from 520 to 420). At that time it took the market nearly two and one-half years—from about April, 1956, to September, 1958—to "digest" the three-year previous spurt from 255 to 521. Similarly, there had been a period of digestion in 1952-53 but without the extreme moves characterizing the later periods. Going back still further, if we date the bull market from 1942 it took over three years during 1947-49 to get the market rolling again after its run-up from 93 in 1942 to 213 in 1946.

THUS, while the present bull market may not have reached its eventual top, it seems entitled to a period of digestion which might last through 1960-61, and if precedent is followed there may be considerable backing and filling. Whether it can resume its upward move later on seems somewhat dependent on the policies of the new President elected in 1960, as well as by the complexion and policies of the new Congress. Inflation has been pretty well slowed down for the time being by President Eisenhower, Treasury Secretary Anderson, and FRB Chairman Martin. This, along with the fact that bonds yield more than stocks, seems to be the main consideration which has given the market pause.

DEPARTMENT INDEX

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Moreover, while there is little to complain of regarding business activity, it is not quite as booming as anticipated earlier. The weekly business indices of *The New York Times* and *Business Week* remain reasonably near their tops but there are indications of a slight downtrend. Steel production is slipping off to 91 per cent and there have been a few cutbacks in auto production. New orders are reported slightly disappointing, and commodity prices have been weakening. On the other hand, instalment debt has increased sharply ($5.3 billion in a year) and manufacturing inventories have risen to a two-year peak. Housing starts are down (as anticipated) but capital spending remains excellent—in fact, it is the main bulwark of business.

Electric utility stocks have behaved quite well, as indicated in the chart on page 477. Utility "growth stocks" are near their record highs—along with some of the electronics favorites—and have not shared the recent fate of many industrial blue chips. The improved tone of the bond market has doubtless been a supporting factor for utility stocks.

Moss Committee's Mysterious Chart on U.S.S.R. 1975 Power Capacity

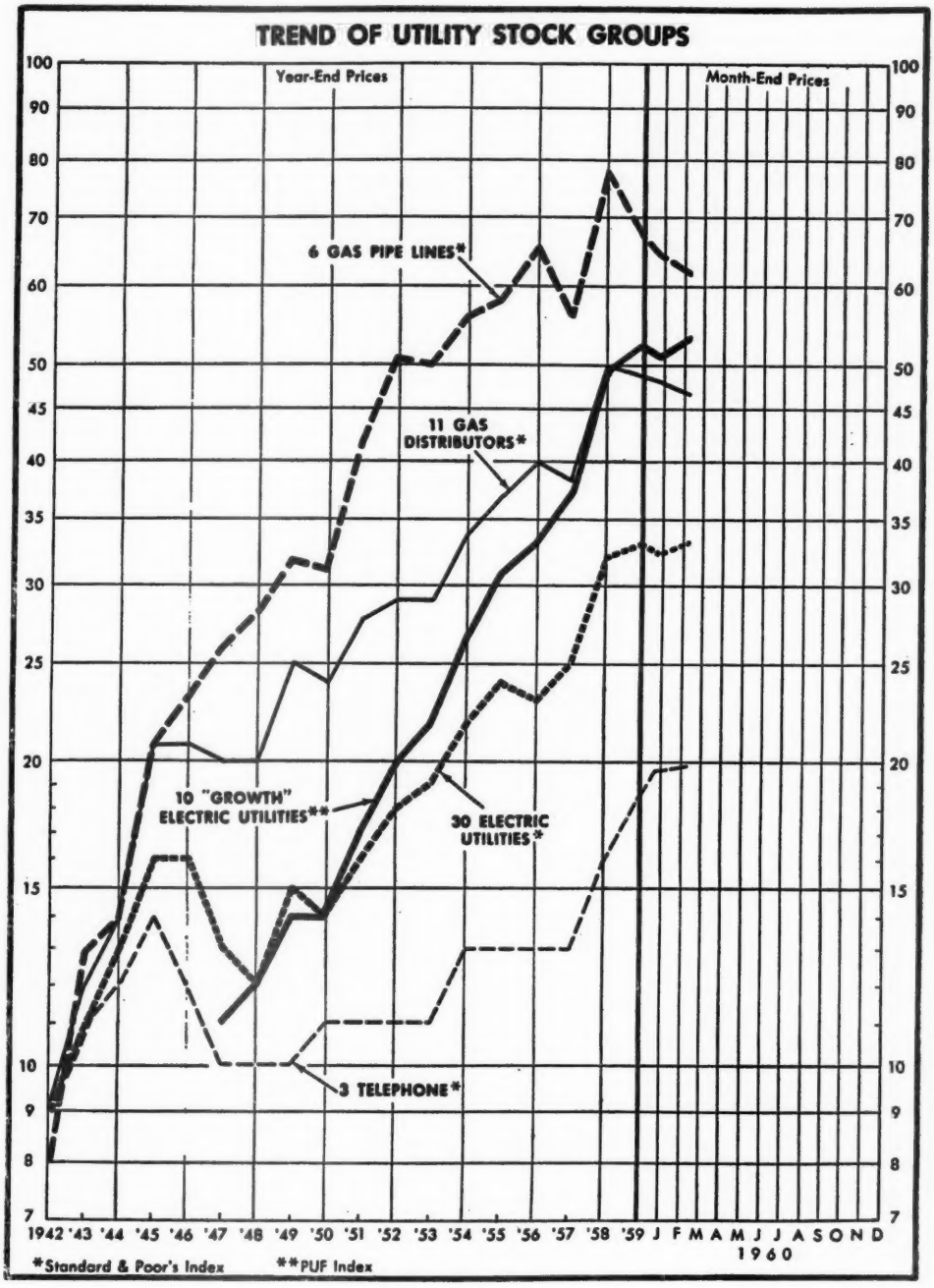
THE *EEI Bulletin* for February contains a summary of the book published by the institute, entitled "A Report on U.S.S.R. Electric Power Developments, 1958-1959," an account of the investigations by two groups of American electric utility executives in Russia. The *Bulletin* (page 35) contains a chart projecting electric power capacity of the U.S.A. and U.S.S.R. to 1965. The subject was also covered in the *P.U.R. Letter* of January 8th and the March 3rd issue of the FORTNIGHTLY.

In January two House and Senate committees sponsored a 174-page "Report and Staff Studies" on the U.S.S.R. power picture. The summary and conclusions, signed by Senators Moss, Gruening, and Muskie, stated on page 2:

> The U.S.S.R. is catching up with the U. S. in electric power production, the basic field in which supremacy counts heavily in peaceful economic competition or in event of war. Although the U. S. is still far ahead, with 142 million installed kilowatts at the beginning of 1959, compared with 53 million in the U.S.S.R., the Russians could overtake us in 1975—in fifteen years—unless we speed up or they slow down.

After thus "viewing with alarm" the relative growth of power capacity in the two nations, the three Senators urged "an accelerated effort in the United States to develop fully our water resources with particular attention to utilization for production of hydroelectric power the water now wasting into the seas." They also proposed a Senate study as to "How the planning function in the electric power industry can be rationally established on a national basis to assure the early and continued maximum application of the latest scientific techniques and the fullest possible use of our thermal and atomic fuel resources, our hydroelectrical potential, and our geographically limited supplies of water."

How did the Senators reach their conclusion that the U.S.S.R. would catch up with the U.S.A. by 1975? This apparently is explained by the chart on page 45, "Present and Projected Power Plant Capacity Kilowatts of U.S.A. and U.S.S.R.," which we reproduce on page 479. The chart indicates that in 1958 the


TREND OF UTILITY STOCK GROUPS
Year-End Prices
Month-End Prices
6 GAS PIPE LINES*
11 GAS DISTRIBUTORS*
10 "GROWTH" ELECTRIC UTILITIES**
30 ELECTRIC UTILITIES*
3 TELEPHONE*
100
90
80
70
60
50
45
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8
7
1942 '43 '44 '45 '46 '47 '48 '49 '50 '51 '52 '53 '54 '55 '56 '57 '58 '59 J F M A M J J A S O N D
1960
*Standard & Poor's Index
**PUF Index

U.S.S.R. had slightly more than one-third of the U.S.A. capacity, while by 1965 this would increase to 49 per cent. These figures are not too far out of line with the corresponding chart published in the *EEI Bulletin,* which does not attempt to project beyond 1965.

The Moss chart adds another ten years —1965-75—showing that by that time Russia will have caught up with the U. S. But the chart extension for the U.S.S.R. in 1965-75 does not appear in line with the legend "Projected annual rate 1958 to 1975 8,857,000 kilowatts in U.S.S.R." compared with a similar annual figure of 10,660,000 kilowatts in the U.S.A. If the chart draftsman had followed this legend, the U.S.S.R. capacity would have approximated only 202 million kilowatts in 1975 instead of 338 million. The chart man apparently forced the U.S.S.R. rate of growth during 1965-75 up to 22.5 million kilowatts per annum, which is 2.6 times the growth rate indicated in the legend for the whole period 1958-75.

Where did this strange projection for 1965-75 originate? If the chartist was correct, is not the legend in error—or vice versa? There does not appear to be any explanation in the text as to how the Russians could be expected to "speed up" so rapidly after 1965. Does not the committee owe the public a further explanation of this chart, which is the keystone of its conclusions?

Electric Autos Might Double Use of Electricity

THE scholarly address by Charles Hochgesang, editor of *Electrical World,* before the AIEE in January, followed by the story in the March 12th *Saturday Evening Post,* has stimulated

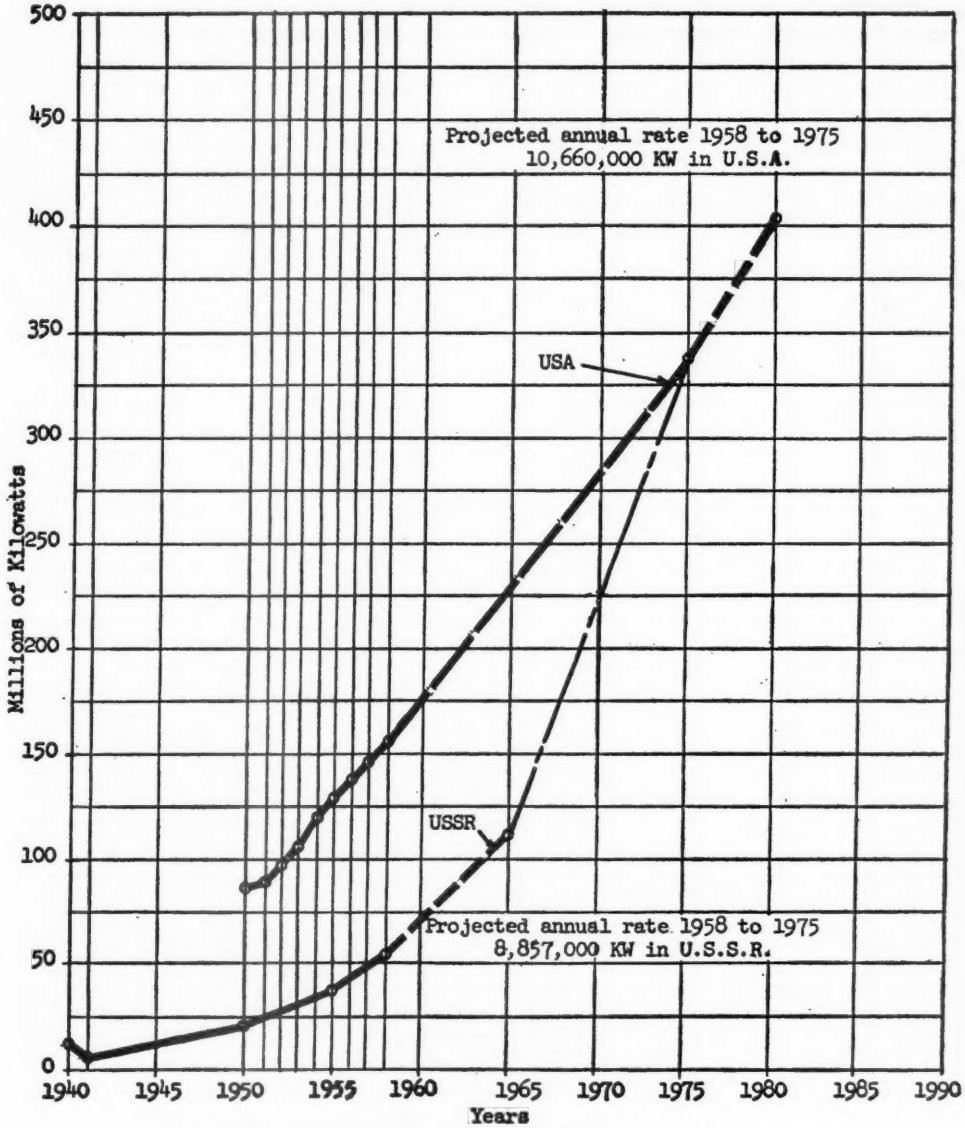
FEBRUARY UTILITY FINANCING

PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount (Mill.)	Description	Price To Public	Underwriting Spread	Offering Yield	Aver. Yield For Securities Of Similar Quality	Moody Rating	Success Of Offerings
		Bonds and Debentures						
2/9	$25	Cons. Natural Gas Deb. (s.f.) 5s, 1985	100.71	.78C	4.95%	4.62%	Aaa	d
2/10	12	Texas Electric Service S.F. Deb. 5¼s, 1985	102.11	.70C	5.10	4.99	A	d
2/19	50	Duke Power Co. 1st & Ref. 5¼s, 1990	102.40	.79C	4.97	4.59	Aaa	d
2/25	20	Duquesne Light Co. S.F. Deb. 5s, 2010	100.92	.78C	4.95	4.64	Aa	d
2/25	12	Public Service of Oklahoma 1st (s.f) 5s, 1990	98.75	.78C	5.08	4.64	Aa Aa	c c
2/26	25	Dayton P.&L. 1st (s.f.) 5⅛, 1990	100.38	.74C	5.10	4.64		
		Preferred Stocks						
2/25	15	Brooklyn Union Gas 5.32% (s.f.) Pfd.	100.00	1.75N	5.50	—	*Earns.-Price Ratio*	a
		Common Stocks—Offered to Public						
2/3	6	Tampa Electric	27.00	.87N	2.07	—	3.5%	a
2/16	55	Tenn. Gas Transmission	34.50	1.75N	3.22	—	5.6	a
2/25	1	Carolina Natural Gas	4.00	N	—	—	—	a

C—Competitive. N—Negotiated. a—The issue was reported well received. c—It is reported the issue sold somewhat slowly. d—It is reported the issue sold slowly.
Source, Irving Trust Company

RELATIVE POWER RESOURCE DEVELOPMENT IN U.S.S.R. AND U.S.A.



Present and Projected Power Plant Capacity KW of U.S.A. and U.S.S.R.

Source, Moss Committee Report, p. 45

new interest in the potentialities of the electric automobile—despite the debacle with the Stinson "Charles Town-About" car. Apparently the latter has not discouraged Chairman "Pat" England of Atlantic City Electric and other utility executives, who realize the tremendous load potential for the utility industry if even a portion of our present "gas buggies" should be supplanted by the electric battery-type car, which would be recharged nightly by merely plugging in to an electric connection.

Mr. Hochgesang worked out some statistics which show that if the electric car had won the race that took place early in the century among the gas-engine car, the steam-driven auto, and the electric—and assuming that each mile of vehicle travel uses one kilowatt-hour of central station energy (through the medium of charged batteries)—some 625 billion kilowatt-hours per annum would be needed for automotive "fuel" or about as much as generated for all purposes in 1958. In other words, the electric utilities would have to double their present size regardless of other growth.

He admits that this is still a dream, though a very lively one. There are other scientific alternatives to charging the battery. Perhaps a fuel cell can be developed and used by the electric automobile—but in that case the electric utilities would not get any of the business—the energy would come from filling the car tank, the same as now, but with a somewhat different fuel. Also, an electric generator might be developed—powered by a prime mover or a fuel cell—which would supplement the storage battery and take care of peak demands; and in this case the battery *might* be recharged from the fuel cell.

In 1900 electric cars ran neck-in-neck with steam, and gasoline was a poor third; but by 1905 they accounted for only 12 per cent of all cars and in 1910 only 2 per cent. Unfortunately, the electric auto succumbed to its reputation as an "old lady's car." The electric truck lasted much longer, and production of these ended in 1933—although a few are still used.

According to Mr. Hochgesang the financial difficulties encountered by the Stinson car have not discouraged the utilities: Some 80 per cent of the 55-odd orders placed for the new Eureka-Williams electric are from companies which were "burned" by the Stinson episode. Some utility companies are planning to buy electric trucks and cars for their own use.

The ladies are said to be using their husbands' electric golf carts for routine errands about town—a small electric car should have a good market for such use, even if it does not supplant the gas auto for long-distance trips. It can be easily parked, has no fumes, and is inexpensive to operate. In fact, J. C. Furnas in *The Saturday Evening Post* story reports that "with streamlined bodies and updated innards, new electric trucks and passenger cars are rolling now in Atlantic City, Detroit, Cleveland, and Spokane, and in several towns of France and England." Latest reports are that two Eureka-Williams cars are on view at the current utility convention at Boca Raton.

U. S. Gas Reserves Up 3 Per Cent, Canadian 14 Per Cent

Proved recoverable reserves of natural gas in the United States reached a new high of 262.6 trillion cubic feet in 1959. Additions to reserves totaled 20.9 trillion cubic feet, including newly discovered reserves of 5.8 trillion and extensions and revisions of previous estimates amounting to over 14.9 trillion. After deducting the

12.4 trillion cubic feet gas consumed, there was a net increase for the year of 8.5 trillion cubic feet. Texas and Louisiana maintained their leadership; the two states account for over two-thirds of reserves and showed the greatest increases last year.

Since 1948 the U. S. reports have included gas stored underground by utility companies in proved reserves. The net increase in underground storage last year was 161 billion cubic feet.

Canadian reserves increased from 23.3 trillion cubic feet in 1958 to 26.6 trillion in 1959, after allowing for net production of about 0.5 trillion. New discoveries in Canada approximated 0.8 trillion cubic feet, with extensions and revisions accounting for nearly 3 trillion.

The American Gas Association committee pointed out that it is often not possible to estimate the total reserves of a field in the year of its discovery. Satisfactory estimates can be made only after there has been sufficient drilling and experience.

FINANCIAL DATA ON GAS UTILITY STOCKS

Annual Rev. (Mill.)			3/9/60 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1954-59	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Pipeline and Integrated Systems									
$ 5	O	Ala. Tenn. Nat. Gas	26	$1.20(k)	4.6%	$1.53Se	13%	11%	17.0	78%	40%
227	S	American Nat. Gas	57	2.60(L)	4.6	4.55De	12	7	12.5	57	40
76	A	Arkansas Louisiana Gas .	33	1.00	3.0	1.60Se	44	55	20.6	63	50
55	O	Colo. Interstate Gas	47	1.25	2.7	2.84Se	NC	8	16.5	44	24
465	S	Columbia Gas System ..	20	1.00	5.0	1.40De	1	6	14.3	71	43
7	O	Commonwealth Gas	6	—	—	.49De†	22	—	12.2	—	77
19	O	Commonwealth N. G. ...	21	1.00	4.8	1.57Se	D4	10	13.4	64	47
12	S	Consol. Gas Util.	23	.90(b)	3.9	1.48Oc	5	15	15.5	61	59
304	S	Consol. Nat. Gas	43	2.20	5.1	3.09De	D3	9	13.9	71	59
368	S	El Paso Nat. Gas	27	1.30	4.8	1.61De†	D2	—	16.8	81	17
50	S	Equitable Gas	34	1.75	5.1	2.54De	9	5	13.4	69	44
36	O	Houston N. G.	31	.80	2.6	1.52Oc	3	9	20.4	53	20
21	O	Kansas Nebr. Nat. Gas .	47	2.00	4.3	3.51Oc	20	6	13.4	57	36
113	S	Lone Star Gas	37	1.80	4.9	2.32Se	2	8	15.9	78	43
77	S	Miss. River Fuel	31	1.60	5.2	2.08Ma	NC	5	14.9	77	48
28	S	Montana Dakota Util. ...	27	1.20	4.4	1.86Oc	13	12	14.5	65	29
26	O	Mountain Fuel Supply ..	23	1.20	5.2	1.76Je	7	3	13.1	68	51
94	S	Natl. Fuel Gas	23	1.15	5.0	1.91De	30	6	12.0	60	56
159	S	Northern Nat. Gas	27	1.40	5.2	1.92De	19	7	14.1	73	32
43	S	Oklahoma Nat. Gas	26	1.24	4.8	1.95De	11	5	13.3	64	34
121	S	Panhandle East. P. L. ..	43	1.80	4.2	2.74De†	—	2	15.7	66	40
15	O	Pennsylvania Gas	25	1.20	4.8	2.13De†	D2	20	11.7	56	59
226	S	Peoples G. L. & Coke ..	58	2.30	4.0	4.04De	33	8	14.4	57	43
26	O	Pioneer Natural Gas ...	42	1.60	3.8	2.81De	27	9	14.9	87	43
104	S	Southern Nat. Gas	35	2.00	5.7	1.59De††	D18	—	22.0	126	43
41	O	Southern Union Gas ...	24	1.12	4.7	1.50De	7	8	16.0	75	27
463	S	Tenn. Gas Trans.	35	1.65	4.7	1.93De	4	17	18.1	86	26
296	O	Texas East. Trans.	26	1.40	5.4	2.02De	D13	4	12.9	69	21
104	S	Texas Gas Trans.	30	1.40	4.7	2.15Se	14	3	14.0	65	31
115	O	Transcont. Gas P. L. ...	20	1.20(b)	6.0	1.25De	8	13	14.8	96	19
318	S	United Gas Corp.	31	1.50	4.8	2.39Se	D1	4	13.0	63	42
		Averages			4.6%		8%	9%	15.1	70%	
		Retail Distributors									
34	S	Alabama Gas	28	$1.60	5.7%	$1.85De	D15%	1%	15.1	88%	35%
57	O	Atlanta Gas Light	36	1.80	5.0	2.49De	13	6	14.5	72	39
3	O	Berkshire Gas	18	1.00	5.6	1.16N	D7	6	15.5	86	41
7	A	Bridgeport Gas	30	1.68	5.6	2.23Se	10	7	13.5	71	46

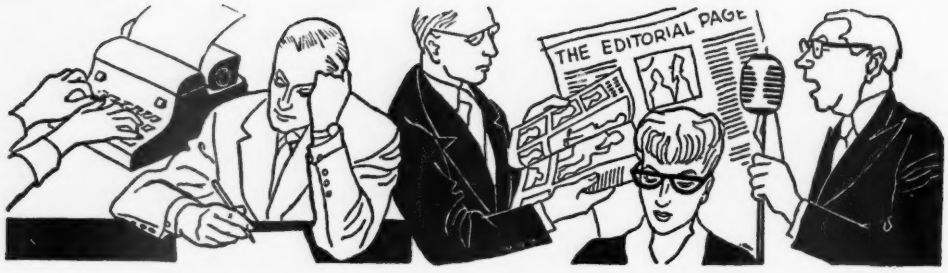
Annual Rev. (Mill.)		(Continued)	3/9/60 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1954-59	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
6	O	Brockton-Taunton Gas ..	19	1.00	5.3	1.30De†	10	18	14.6	77	46
89	S	Brooklyn Union Gas	26	1.20	4.6	1.67De	—	6	15.6	72	42
45	O	Central Elec. & Gas	24	1.20	5.0	1.83De	22	9	13.1	66	18
13	O	Cent. Indiana Gas	14	.80	5.7	.75Se	D33	13	18.7	107	57
6	O	Chattanooga Gas	4	—	—	.26N	D40	—	15.4	—	44
15	O	Elizabethtown Gas	33	1.60	4.8	2.67Oc	D17	13	12.4	60	78
68	O	Gas Service	34	1.72	5.1	2.81De	22	11	12.1	61	36
9	O	Hartford Gas	43	2.00	4.7	2.45Je	16	—	17.6	82	51
3	O	Haverhill Gas	28	1.60	5.7	2.08De	13	12	13.5	77	53
21	O	Indiana Gas & Water ..	22	1.00(b)	4.5	1.50Ja	D5	5	14.7	67	46
55	S	Laclede Gas	19	.90	4.7	1.10Se	D15	5	17.3	82	36
6	O	Mich. Gas Utils.	24	1.20	5.0	1.48Se	22	4	16.2	81	34
44	O	Minneapolis Gas	30	1.55	5.2	1.96Se	14	5	15.3	79	46
17	O	Miss. Valley Gas	23	1.20	5.2	1.98Se	D15	7	11.6	61	34
6	O	Mobile Gas Service	24	1.10	4.6	1.25Se	D29	6	19.2	88	37
8	O	New Haven Gas	38	2.00	5.3	3.07De†	30	11	12.4	65	67
16	O	New Jersey Nat. Gas ...	22	.90	4.1	1.21De	D10	12	18.2	74	36
105	O	No. Illinois Gas	31	1.20	3.9	1.80De	28	14	17.2	67	50
10	O	North Penn Gas	11	.60	5.5	.91Je	13	10	12.1	66	60
20	O	Northwest Nat. Gas	18	.72	4.0	*1.31De	36	11	*13.7	55	36
285	S	Pacific Lighting	47	2.40	5.1	2.64De	D13	8	17.8	91	42
11	O	Piedmont Nat. Gas	14	.50	3.6	.73Se	D21	15	19.2	68	31
2	O	Portland Gas Lt.	17	.75(m)	4.4	2.31De†	128	21	7.4	32	27
10	A	Providence Gas	10	.56	5.6	.66Oc	14	5	15.1	85	50
4	A	Rio Grande Valley Gas .	4	.16	4.0	.38Je	20	9	10.5	42	55
6	O	So. Atlantic Gas	14	.80	5.7	1.22Se	27	5	11.5	66	32
14	S	So. Jersey Gas	23	1.00	4.3	1.28N	11	14	18.0	78	50
34	S	United Gas Impr.	49	2.40	4.9	3.39De	8	5	14.4	71	54
63	S	Wash. Gas Light	46	2.24	4.9	3.50De	4	3	13.1	64	40
14	O	Wash. Nat. Gas	20	(g)	—	1.35Se	150	5	14.8	—	40
10	O	Western Ky. Gas	16	.60(i)	3.8	1.39Se	D5	3	11.5	43	41
		Averages			4.9%		11%	8%	15.1	68%	

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER STOCKS

Annual Rev. (Mill.)			3/9/60 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1954-59	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Communications									
$6,771	S	American T. & T. (Cons.)	86	$3.30	3.8%	*$5.19De	15%	4%	*16.6	64%	64%
377	A	Bell Tel. of Canada	45	2.20	4.9	2.39De	12	—	18.8	92	62
51	O	Cin. & Sub. Bell Tel. ..	90	4.50	5.0	5.57De	8	2	16.0	81	77
255	A	Mountain Sts. T. & T. ..	176	6.60	3.8	9.88N	7	4	17.8	67	76
380	A	New Eng. T. & T.	36	1.72	4.7	2.21De	7	7	16.3	78	59
937	S	Pacific T. & T.	27	1.14	4.2	1.42N	12	1	19.0	80	61
119	O	So. New Eng. Tel.	45	2.20	4.9	2.75Je	13	7	16.4	80	61
		Averages			4.5%		11%	4%	17.3	77%	
		Independents									
6	O	Anglo-Canadian Tel. ...	30	$1.20	4.0%	$3.45De	17%	21%	8.7	35%	52%
45	O	British Col. Tel.	45	2.20	4.9	3.04De	77	—	14.8	72	28
4	O	Calif. Inter. Tel.	14	.70	5.0	.92Se	10	NC	15.2	76	24
22	O	Calif. Water & Tel.	26	1.28	4.9	1.98Oc	NC	2	13.1	65	37
20	O	Central Tel.	21	.88(b)	4.2	1.72Se	14	5	12.2	51	33
5	O	Commonwealth Tel.	20	.90	4.5	1.35Je	D6	15	14.1	67	35
5	O	Florida Tel.	26	1.00	3.8	1.32De	32	—	19.7	76	42

Annual Rev. (Mill.)		(Continued)	3/9/60 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1954-59	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
1,080	S	General Tel. & Elec.	72	2.20	3.1	3.24De	11	10	22.2	68	43
22	O	Hawaiian Telephone	20	1.00	5.0	*1.26Ja	2	4	15.9	80	49
8	O	Inter-Mountain Tel.	16	.80	5.0	.77De	D15	—	20.8	104	53
23	S	Rochester Tel.	25	1.00	4.0	1.59Je	16	4	15.7	63	33
11	O	Southwestern St. Tel. ..	22	1.20	5.5	1.36Je	D14	—	16.2	88	37
13	O	Telephone Serv. of Ohio	145	2.80(q)	1.9	8.78De	22	8	17.6	32	30
38	O	United Utilities	38	1.45	3.8	2.09De	25	3	18.2	69	36
16	O	West Coast Tel.	24	1.20	5.0	1.54Se	30	—	15.6	78	32
276	S	Western Union Tel.	49	1.40	2.9	2.59De	31	15	18.9	54	87
		Averages			4.2%		17%	6%	16.2	67%	
		Transit Companies									
20	O	Baltimore Transit	8	$1.00	12.5%	$ .58De†	D43%	—	13.8	172%	48%
12	O	Cincinnati Transit	7	.30	4.3	.91De	193	—	7.7	33	56
65	S	Fifth Ave. Lines	17	.50	2.6	.02De†	D99	—	—	—	75
305	S	Greyhound Corp.	20	1.00(p)	5.0	1.81De	D5	—	11.0	55	50
25	S	Nat. City Lines	28	2.00	7.1	1.69De†	D38	—	16.6	118	94
13	O	Niagara Frontier Trans.	11	.60	5.4	.10De†	D87	—	—	—	67
17	A	Pittsburgh Rys.	11	.25	2.3	.03Se	—	—	—	—	90
6	O	Rochester Transit	6	.40	6.7	.86De†	34	9	7.0	47	100
21	O	St. Louis P. S.	11	1.00	9.1	.77De	13	—	14.3	130	97
13	S	Twin City R. T.	8	—	—	.59De	146	—	13.6	—	65
19	O	United Transit	7	.70	10.0	.89De	18	—	7.9	79	55
		Averages			6.5%		D12%	—	11.7	93%	
		Water Companies									
		Holding Companies									
43	S	American Water Works	19	$ .80	4.2%	$1.46De	44%	—	13.0	55%	19%
		Operating Companies									
5	O	Bridgeport Hydraulic ...	33	$1.70	5.2%	$1.75De†	D15%	2%	18.9	97%	53%
17	O	Calif. Water Service	24	1.20(j)	5.0	1.73Ja	4	6	13.9	69	37
4	O	Elizabethtown Water ...	53	2.40	4.5	3.78De†	D3	11	14.0	63	59
11	S	Hackensack Water	49	2.40	4.9	4.14Se	NC	—	11.7	58	35
9	O	Indianapolis Water	26	1.00	3.8	1.22De†	D4	5	21.3	82	36
6	O	Jamaica Water	40	2.20	5.5	3.21Se	D4	1	12.4	69	27
5	O	New Haven Water	67	3.40	5.1	3.32De†	9	5	20.2	102	61
2	O	Ohio Water Service	28	1.50(b)	5.4	1.75Se	7	—	16.0	86	31
9	O	Phila. & Sub. Water	47	1.60(e)	3.4	2.75Je	D7	—	17.1	58	27
3	O	Plainfield Un. Water	21	1.10	4.8	2.31De	44	12	9.1	43	66
5	O	San Jose Water	32	1.30	4.1	2.25De	13	10	14.2	58	41
11	O	Scranton-Springbrook ..	23	1.20	5.2	1.63Se	4	4	14.1	74	25
5	O	South. Calif. Water	19	1.00	5.3	1.32Se	20	6	14.4	76	33
4	O	W. Va. Water Service ..	21	.80(d)	3.8	1.80De	23	—	11.7	44	18
		Averages			4.7%		7%	4%	15.0	63%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. NC—Not comparable. NA—Not available. D—Decrease. *On average shares. **Includes tax savings from accelerated depreciation. (a)—Adjusted to eliminate 13 cents per share of nonrecurring tax savings. (b)—Also 20 per cent stock dividend January 15, 1960. (d)—Also 1 per cent stock dividend quarterly. (e)—Also 3 per cent stock dividend January 7, 1960. (g)—Five per cent stock dividend April 10, 1959. (i)—Also 5 per cent stock dividend December 29, 1958. (j)—Also 5 per cent stock dividend March 19, 1959. (k)—Also 20 per cent stock dividend March 9, 1959. (L)—Also 10 per cent stock dividend June 10, 1959. (m)—Also 10 per cent stock dividend January 15, 1960. (n)—Excludes profit realized on sale of Los Angeles Transit $3.81 per share. (p)—Also 5 per cent stock dividend June 30, 1959. (q)—Also 3 per cent stock dividend December 31, 1959. †December, 1958. ††Excludes profit on sale of securities of 26 cents per share.



What Others Think

The Impact of Unsound Regulatory Practices On Water Companies

LIKE a Chinese torture—the death of a thousand cuts—the cumulative effect of unsound practices can kill the water utility business. Two court decisions and the proposal of new rules and regulations by the public utility commission in New Jersey have brought this cumulative effect into sharp focus. The supreme court of New Jersey has stated that utilities must extend their service an unlimited distance, providing the money spent does not jeopardize the financial stability of the company, and even then rate relief is the suggested alternative.

As for the utility commissioners' proposal of new rules and regulations, hearings were held on a proposed revision of the rules and regulations which would have required water utilities to invest approximately ten times the annual revenue in new residential services. Fortunately, the commission withdrew this proposal and apparently will revert to the past practice, which is to invest about six years' revenue for each new residential customer.

However, this extension rule is still a striking example of the Chinese torture—the dangers from the cumulative effect of an unsound rule. It is obvious that a large utility which is adding thousands of new customers each year can provide service at its expense halfway to China without adversely affecting the financial structure of the company. But how many such unsound extensions can be made before its financial integrity will be impaired to the detriment of all customers? The exhibits presented by Elizabethtown Water Company at the commission hearings demonstrated that had the proposed rules been in effect for the past ten years, during which time 12,000 new services were installed, it would have been necessary to raise rates to all customers by at least 30 per cent or seriously jeopardize the company's ability to provide service.

Cumulative Effect

SHOULD the cumulative effect of a regulation produce an improper or unsound result, then each individual application of the regulation is improper and unsound, even though such individual application may appear to be innocuous and inconsequential.

From my observation this principle has not been widely invoked in the field of utility regulation, although there are extensive applications in other fields. For instance, in the area of smoke abatement and air pollution, a single garbage fire in

the Jersey meadows will not contaminate the air of the area, but the cumulative effect of many fires can make the metropolitan district uninhabitable and such contamination is controlled by law.

It is my belief that the principle of cumulative effect is fully applicable to the regulation of public utilities.

Should the premise that cumulative effect *does* make a difference be accepted, many problems—such as main extensions, which face a state-regulated utility—could be solved on a precise mathematical basis. A utility should be operated on such a basis rather than deal with each prospective customer separately.

Areas of Agreement

IN order to work out a sound basis for utility regulation, there must be general areas of agreement concerning the principles involved. These areas must be explored so that the conclusions drawn will be appreciated by the regulatory bodies, the courts, and the utilities to be regulated. The following principles are suggested:

1. The primary objective of any utility is to serve the public.

2. Every utility must be financially sound so that it is able to render adequate service and attract capital needed to meet community growth.

3. With power goes responsibility. If the state has the power to regulate, it is obligated to see that utilities are permitted to be financially healthy and able to render the adequate service required by their customers.

4. While the principles of cumulative effect are particularly applicable to service extensions, they also permeate all fields of utility regulation, including rate of return, depreciation theories, and allied fields where individual injustices are at the time inconsequential, but the end result may spell disaster.

5. Private water utilities are particularly vulnerable to this rule of cumulative effect.

6. Water utilities require a larger investment of capital per dollar of revenue than any others. Water utilities must have $5.13 of capital invested for each $1 of revenue. With such high capital requirements a private water utility must be in the healthiest condition to attract this capital.

Areas of Disagreement

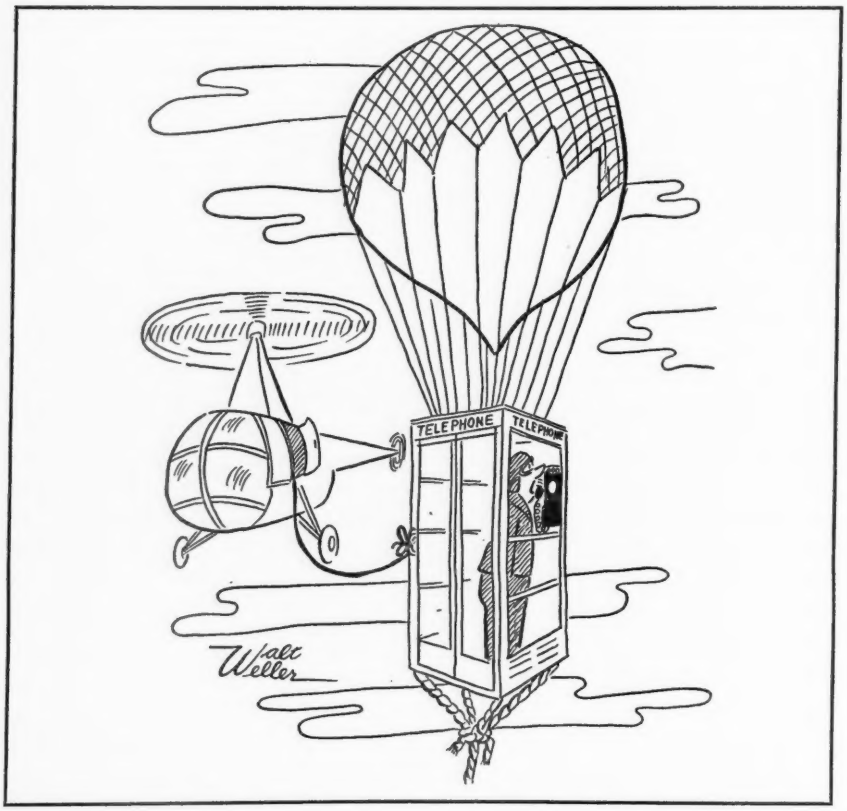
FORTUNATELY, the areas of disagreement between the private water companies and the public are narrowing. Thirty years ago these utilities were a popular whipping boy for every candidate for public office.

Most of the people now know the major difference between public and private ownership is in the matter of the taxes which the public system does *not* pay. Consequently, the drift to governmental ownership has stopped except where the private owners deliberately choose this action as a relief from unsound regulation. While the owners of many a private utility know they cannot obtain a reproduction cost rate base from the regulatory commission they also know that if they sell to a municipality they can obtain approximately this value as a sale price.

Development of an Extension Rule

THE rules governing extensions of water service into new areas can have a far-reaching effect on the utility as the cost of transporting water is greater than the cost of transporting the products of any other utility.

In a rapidly growing state, such as New Jersey, an unsound regulation will make such heavy demands for new capital for



the distribution system that necessary improvements to water supply, purification, and transmission may be the fields in which the company will have to economize, resulting in inadequate service. The alternative will be a continuous succession of rate cases.

It might be argued that such a regulation should be designed to encourage the growth of an area. This can only be stated in terms of cost to customers and actually means to "subsidize the growth" of an area.

While this may be a laudable objective, why should the older customers be expected to subsidize the growth of new areas through higher rates or deteriorating service?

With regard to new subdivisions in New Jersey, there are certain inescapable facts: The ideal land and economic locations for new subdivisions are being exhausted. As less desirable areas are subdivided, the costs rise. These costs are inherent in the topography and location of the land. It certainly is not the responsibility of a utility to defray the development cost of these subdivisions.

If we are to adopt a rule for extensions which will avoid the pitfalls of cumulative effect, then certain basic safeguards must be provided. These would include:

1. The regulation must permit the continuous growth of a system without upsetting the financial and rate structure of the company.

2. The regulation must be uniformly applicable throughout the system, except under unusual or compelling conditions.

3. The rule must NOT be discriminatory. It must not discriminate against the new customers by creating a condition where there would be excessive earnings from the new customer, which would tend to reduce the rates to the old customer. Similarly, it must not discriminate against the old customers by creating a financial and operating condition which results in a loss because of each new customer connected, which loss must inevitably be recouped by raising the rates to all the old customers.

4. In making computations for the money which the utility should invest in a new extension, the only question is that of total dollars. Whether this money be invested in a new main, a new service, or the necessary meter is immaterial. It is only the total that counts and the potential return or lack of return thereon.

After adopting the above concepts, the details can be derived by mathematical computation. The rule must stand the test of mathematics, not the whim or the horse-trading instinct of the individuals negotiating for the extension. If the proper basic concepts are followed, the company should be able to expand to any level whatever without a succession of rate cases necessitated by a continual need for capital for the distribution system.

In order to work out the mathematical calculations for an extension rule, the following premises have been used:

An extension, whether it be to serve one customer or a thousand, should be considered as though it were attached to the basic backbone plant of the water company. This new extension must pay its proportional part of all the costs associated with the backbone plant.

Therefore, it must bear its share of the operation and maintenance costs of the backbone plant. It must bear its share of the costs associated with the equity and debt invested in the plant, including return on investment.

Each extension must also pay all costs associated with the extension itself, consisting of the operation and maintenance costs of the extension and the return on capital invested. These include: (a) the return to the company for the capital invested; (b) local taxes, depreciation, and maintenance of the property installed; (c) costs associated with the individual customer attached to the extension, such as the maintenance of the service and meter, meter reading, and billing.

If for any particular extension the sum of the annual costs of the above items does not exceed the annual revenue derived from the extension, then the amount of capital invested in the extension is justified by the company, as the extension meets all of the principles set forth previously.

If the sum of the annual costs of the above items exceeds the annual revenues, then there would be an excessive investment of capital by the company, the excess part of which should have been advanced by the developer.

Other Applications of the Principle Of Cumulative Effect

Once it can be shown that a Chinese torture cannot be tolerated, even though each individual cut may appear inconsequential, there are other fields of inequity which we should examine.

There is the problem of depreciation accruals. The present practice which relates depreciation accruals to original cost can never accumulate the funds needed to replace the plant when it must be rebuilt. If it is the purpose of such accruals to do so, present practices are inequitable; and efforts to correct such practices have been unavailing.

Another field where the insidious hacking away of the Chinese torture is felt is in the field of dilution of equity. Water companies must be in a healthy financial condition so debt and equity capital can be raised in required amounts to provide the funds needed for expansion. This can only be done when equity capital as evidenced by common stock is obtainable on favorable terms.

The present shareholders of any utility have accumulated a certain book value for their stock by dint of their original investment and retained earnings. It is basically wrong and a taking of property without due process of law to force the companies to sell new stock at a price lower than the book value of the old. This is a dilution of equity which should not be tolerated and prevents the proper growth of the company. This ability to sell new stock at a price not less than the book value of the old is an absolute minimum position to avoid confiscation of property and therefore a negative incentive to expand.

CONTRARIWISE, the utility should be encouraged to expand to serve the public by a regulatory climate which would make possible increased equity values in an expanding economy. This is true whether the standard of rate base valuation is one of original cost or whether some weight is given to present-day values.

By applying the principle of cumulative effect to the problem of selling equity capital, testimony can be introduced which will be factual and mathematical, without placing undue reliance on mere opinions. The investment houses which specialize in selling new issues of utility equities can give precise testimony as to the current selling price of new issues of common stock of similar companies in relation to the earnings. From this can easily be determined the earnings and the rates necessary for a given company to sell or maintain its stock at favorable terms. Earnings must be sufficient at all times to permit the sale of new common stock without diluting the equity of the present stockholders.

Conclusions

IN conclusion, this principle of cumulative effect can be a useful tool to obtain just and equitable treatment for utilities. In the case of extension rules, its applicability cannot be questioned and it is mathematically precise.

The principle could be applied to the setting of depreciation rates in other fields where the individual effect of an unsound rule is minor while the cumulative effect is serious. The principle also can be extended to some of the more basic problems of utility regulation such as the computation of rate of return. Dilution of equity is basically wrong and can only lead to disastrous consequences.

There is no excuse for unsound practices, even though each such incident may have only a small monetary effect. It is just as wrong to cut off the tail of a cat an inch at a time as it is to cut it off once just behind the ears!

—JAMES GIRAND,
Chief engineer, Elizabethtown Water Company, Consolidated, Elizabeth, New Jersey.

The March of Events

Army Invents Control Device

ARMY inventors have devised a controlling device that may eliminate complicated electronic and mechanical valves and controls. It consists of a small plastic or metal block with passageways running through it, and has no moving parts. By using the flow action of liquids or gases, plus precise channel controls, the invention could replace vacuum tubes, transistors, servomechanism, relays in petroleum and chemical processing, food handling, pipelines, hydroelectric generation controls, air conditioning, and heat regulation.

Called the "pure fluid amplifier," combinations of it in systems are now being patented through government channels. However, the principle remains open for use by industrial engineers. A small plastic PFA, its inventors stated, would cost only a fraction of a cent and do the job now done by 50-cent resistors and $1 vacuum tubes.

California

Lowest Rates in Nation

IN its annual report, the state public utilities commission stated that California utility rates are still about the lowest in the nation. It said it has been able to obtain reductions in utility charges amounting to about $771,420 during 1959. Nevertheless, there was an increase in rates during the year of $31 million. This was due, the commission declared, to higher costs of operations for utilities which sell gas, electricity, water, and telephone service.

The report further revealed that the commission was organizing a special task force of attorneys and technical experts to fight increases in the price of natural gas. The commission said some members of the task force already are at work in Washington, D. C., before the FPC opposing hikes in natural gas rates.

District of Columbia

President Urges Transit Plan

PRESIDENT Eisenhower has told Congress to create a federal agency to solve the transportation problems of the national capital area. He said $265 million spent over the next eight years could be used to build Washington's first subway line and other links in a metropolitan rapid transit network.

However, his suggestions leave open the possibility of the establishment of a locally controlled interstate agency that

would build and run the system—and, in the process, slash the size of the federal investment. Half of the federal funds would be appropriated, the other half would be borrowed.

The President's plan calls for a temporary development agency with a life span of about three years to prepare final plans for transit facilities. Cost would be $25 million. While it could buy limited amounts of land for future rights of way, with state or local approval, it could not acquire existing transit companies or run any service. After three years the federal agency would be converted into a federal corporation with full power to buy and build transit facilities. The final stage would be an interstate agency which would be created by an interstate compact. In the event the compact were agreed to, or its negotiation seems likely, the President could eliminate the federal corporation envisioned as the second stage. Its powers would then go to the interstate body.

Kentucky

Power Plant Planned

THE Kentucky Power Company has announced it expects to build a $39 million electric-generating plant near Louisa. The new plant, which will generate 265,000 kilowatts, would supply all the electric power requirements of the 365,000 people served by Kentucky Power and more besides, according to Philip Sporn, president of American Electric Power Company, of which Kentucky Power is a subsidiary.

Sporn said the extra power would be integrated into the seven-state AEP network. Primarily, he said, the new plant would be a source of industrial power. And a second unit might be added later, the AEP head stated, if economic conditions of eastern Kentucky require it.

Gas Rate Hike Asked

LOUISVILLE GAS & ELECTRIC COMPANY has asked the Kentucky Public Service Commission for approval of a 1.1 per cent rate increase for gas service, effective May 14th. The boost is to cover increased costs of wholesale gas the company purchases from Tennessee Gas Transmission Company, so it is practically automatic. Tennessee Gas Transmission's increase goes into effect after April 5th, subject to final OK by the FPC.

Gas bills of the average residential customer who heats and cooks with gas will only go up $1.41 a year under the new rates. And those customers using gas for only cooking and water heating will pay but 25 cents a year more. The increase, which is the company's sixth since 1955, will give it $295,000 in additional revenue.

Pennsylvania

Commission OK's Microfilm

MICROFILM replacement of original utility records was ruled on by the Pennsylvania Public Utility Commission in February in regard to revision of regulations governing the preservation of records of water utilities.

The order noted that the commission's regulations, as amended in 1948, did not provide for the retention of microfilm copies in lieu of certain original records which would effect storage space economies for the utilities. This 1948 regulation has now been amended as follows:

1. Each utility shall keep and preserve its records in conformity with the provisions applicable to it in the publication of the NARUC, entitled "Regulations to

Govern the Preservation of Records of Electric, Gas, and Water Utilities—1958."

2. Public utilities that maintain the original cost of their plants in continuing property records which conform to commission requirements may apply for permission to dispose of books and records related to transactions dated twenty years or more prior to the date of such application.

Tennessee

Few Municipal Electric Plants Pay County Taxes

ONLY 12 out of the 56 municipalities in Tennessee which distribute TVA electricity pay the counties in which they operate amounts of money that could be termed tax equivalents. The other 41 municipal power distributors in Tennessee retain in their general funds all of the tax equivalent moneys (including whatever portion may have been based upon county tax rates) charged electric customers.

These data were revealed by TVA when requested as background information in connection with a series of suits filed in federal courts by several municipalities in efforts to get declaratory judgments relieving them of tax equivalent liability to their counties. Cities which have suits pending in federal courts in controversy with their counties are Greeneville, Tullahoma, and Jackson. The Tennessee Municipal League contends that many Tennessee cities would become bankrupt were they forced to pay large amounts to the counties in accordance with a state court decision affirmed by the Tennessee supreme court.

Texas

To Pay Relocation Expenses

THE Texas State Highway Commission has announced plans to start paying cities and private utilities for relocating their facilities when necessitated by interstate highway construction. An estimated $28 million, including $9 million in Dallas county alone, is to be spent.

The commission revised a policy on utility payments after the cities of Dallas and Austin and private companies won a test case in court. While the Texas legislature had authorized payments to utilities, State Attorney General Will Wilson challenged the law on constitutional grounds.

Despite the litigation involving utilities, highway work has proceeded on the interstate highway program in the state.

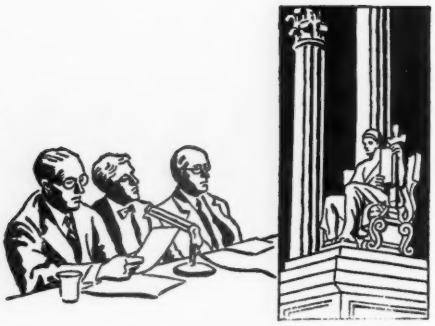
Virginia

Senate OK's Utility Tax Bill

THE state senate has approved and passed along to the house a measure which would permit counties to levy a 10 per cent tax on the bills of public utilities. The legislation would affect only the bills sent by the utilities to consumers with the maximum monthly tax on residential users of electricity being $1 and on industrial and commercial users, $15.

The maximum monthly tax on residential consumers of gas would be 50 cents and on industrial users $7.50. The tax could not be levied on telephone, water, and sewage bills.

The chief sponsor of the measure, Senator J. C. Hutcheson of Brunswick, said he believed the legislature should give counties the same power as cities and towns to tax utilities. One senator, T. C. Phillips, opposed the bill on the grounds it might place the Appalachian Power Company at a competitive disadvantage with TVA.



Progress of Regulation

Trends and Topics

Conflicting Federal and State Accounting Requirements

A PUBLIC utility company subject to regulation by both federal and state commissions faces the somewhat burdensome obligation of complying with conflicting accounting requirements. A telephone company operating interstate must follow the dictates of the Federal Communications Commission with respect to interstate accounting, and it must follow state commission requirements for intrastate accounting. The same is true in the case of companies operating interstate and intrastate gas and electric utilities. Recognition of these difficulties by commissions, even though they do not surrender their jurisdiction, can sometimes alleviate the problem.

State Commissions Recognize Problem

The Utah commission recently said, in the Utah Power & Light Company case, that a conflict between administrative orders of a federal and a state regulatory commission, such as one under discussion in a rate proceeding, should be removed if the public interest will not be adversely affected thereby. The commission recognized that the company was in the position of "having to comply with orders of two different regulatory bodies which contain incompatible accounting requirements."

The commission found no compelling reason to take issue with the balance sheet treatment prescribed by the Federal Power Commission for income tax deferments occasioned by use of the provision of § 168 of the Tax Code. At the same time it said it was not prepared to concede that the jurisdiction of the Federal Power Commission in matters of accounting as related to the company exceeds or takes precedence over the state commission powers in this area (31 PUR3d 321).

The Kentucky commission recognized the difficulties of conflicting accounting requirements in fixing rates for Southern Bell Telephone & Telegraph Company. A depreciation study made by the commission's staff differed

from the depreciation rates established by order of the Federal Communications Commission, which the company followed. The state commission said that while it felt the depreciation rates might be too high, adoption of any other rates would be, in effect, questioning the constitutionality of the statute under which the federal commission was operating, which had not been determined by a court of competent jurisdiction (88 PUR NS 1).

No Surrender of State Jurisdiction

The Louisiana commission, in a rate proceeding, recognized that Southern Bell Telephone & Telegraph Company had been authorized by the Federal Communications Commission to impose a higher depreciation rate than approved in Louisiana, but the commission said that the federal commission has jurisdiction over only the company's interstate operations and the state commission is under no obligation to accept the same depreciation rates in its determination of reasonable rates for intrastate service in Louisiana (14 PUR3d 146).

The New York commission said that a state commission is not prevented from exercising jurisdiction over accounting by telephone corporations operating almost entirely within the state, and only to a small extent in interstate commerce, by reason of the jurisdiction of a federal commission or the exercise of such jurisdiction (5 PUR NS 402).

Later, the New York commission, in fixing rates for the New York Telephone Company, said that depreciation rates fixed by the Federal Communications Commission were binding upon the state commission for purposes of accounting, but the commission could, for the purpose of determining what are fair charges to operating expenses, adopt other or different rates (20 PUR3d 129).

The Indiana commission ruled that a natural gas company selling to consumers, natural gas which had moved into the state in interstate commerce had the obligation to file with the state commission accounting information required of public utilities by state law (63 PUR NS 309).

When Federal Power Supersedes State Power

The rule is well-established that legislation under which the federal government enters a particular field supersedes any legislation by a state and denies to the state any rights or powers so to legislate. The New Hampshire supreme court in one case said that supplementary as well as conflicting regulations of the same subject by the states are precluded by the federal Constitution (38 PUR NS 316).

A federal court declared, in the Arkansas Power & Light Company case, that the authority of the Federal Power Commission over accounts of licensees does not end where state authority begins even though a company may be subject to inconsistent accounting requirements of a state commission (88 PUR NS 252).

An order of the Federal Power Commission prescribing the accounting treatment for the excess purchase price over depreciated original cost

for properties acquired from local electric companies was held by a federal court not to be open to constitutional objection on the ground that a different accounting treatment might be required by the state commission of the state in which the local companies were located and doing business (89 PUR NS 306).

The Federal Power Commission has taken the position that it may require a natural gas company subject to its jurisdiction to furnish accounting data and keep uniform accounts even though the accounts extend beyond facilities subject to its jurisdiction under the Natural Gas Act (74 PUR NS 256). The commission has also asserted its authority under § 301(a) of the Federal Power Act to require an electric company, subject to its jurisdiction, to keep accounts according to its rules and regulations, even though a state commission may require utilities to keep certain accounts, memoranda, or records in a different way (80 PUR NS 193).

Constitutional Question Settled by Supreme Court

The United States Supreme Court upheld an order of the Federal Power Commission requiring a natural gas company, subject to its jurisdiction and also subject to regulation by a state, to furnish accounting data and to keep accounts as prescribed by the federal commission. The court ruled that this was not invalid on the ground that it violated the reserved right of the state under the Tenth Amendment of the federal Constitution. The Natural Gas Act, § 8(a), provides that nothing in the act shall relieve such a company from keeping records as required under state law (82 PUR NS 1).

The Supreme Court, in an earlier case, decided that an order of the Federal Power Commission requiring the disposition of a write-up by Northwestern Electric Company did not violate the reserved rights of the state under the Tenth Amendment to the Constitution, as the order did not purport presently to affect or constrain action by the states within their fields (52 PUR NS 86).

Review of Current Cases

Reproduction and Book Cost Measures Of Value Rejected

THE New Jersey commission granted a water company a rate increase designed to produce a return of 6 per cent on the original cost rate base found reasonable. The commission rejected estimates of reproduction cost and book cost.

There is little to recommend the use of depreciated reproduction cost figures for items that no one would want to reproduce as a basis for the company's rate base, the commission pointed out.

The records showed that some of the elements in the development of rate base on a book cost basis included not only property at original cost but also the consideration paid in excess of the assets acquired over the liability assumed at the time the company merged with another

company in 1926. A witness had testified that no precise accounting could be provided for the difference between book cost and original cost.

Construction Work in Progress

Construction work in progress was excluded from the rate base. It appeared from the record that interest during construction had been capitalized. Investors, therefore, were compensated for the provision of funds during the construction period, the commission said.

Cash working capital was reduced upon a showing that funds were available from sources other than operating revenues to supply the company's cash needs.

Property Taxes

The commission disallowed a pro forma adjustment for additional property taxes. This adjustment was based upon the 1959 tax rate and the estimated taxes on property added during the period but not placed on municipal assessment rolls. It has been established that the company's past experience did not bear out the relationship between property added and assessments.

The experience of the company also indicated that the five-year amortization of rate case expenses was not in accord with previous practice. The last rate increase had been granted ten years ago and a prior increase ten years before that. Amortization of rate case expenses over a ten-year period appeared more reasonable to the commission.

Public Fire Rates

The company's rates for service to public fire hydrants differed between those installed prior to 1941 and those installed subsequent thereto. Such a rate schedule, held the commission, results in a discriminatory rate between municipalities.

The filing of a nondiscriminatory hydrant rate was considered desirable, and the commission so ordered. It would mean, said the commission, that some municipalities would receive a higher percentage increase than others. However, the situation was unavoidable and the resulting uniform nondiscriminatory rates would be in the public interest. *Re Monmouth Consol. Water Co. Docket No. 597-11506, January 21, 1960.*

Allowable Rate of Return to Gas Company Provides for Dividends and Pay-out Ratio

THE Ohio commission authorized the Ohio Fuel Gas Company to increase rates for service to the unincorporated area of Franklin county, Ohio, for a 12-month period ending June 30, 1957. The new rates will afford a rate of return of 5.75 per cent on a rate base fixed at the level of reproduction cost new less depreciation.

Cost of Capital

The company sought a 6.75 per cent rate of return allowance, basing this claim primarily on the cost of capital to the parent Columbia System. The calculation involved an assumed capital structure for the parent company consisting of 55 per cent debt and 45 per cent equity. The composite historical cost rate of 4.04 per cent on debt was used, and a rate of 10 per cent was applied to equity.

Noting that Ohio Fuel Gas was one of the most profitable subsidiaries of the Columbia System, the commission inquired why its cost of equity capital, taking the company as an equity financing

itself, might not well be less than the cost experienced by the Columbia System as a whole. A witness for the company answered that the question could not be answered "unless it were put on an individual basis." The commission observed that analysis on an individual basis indicated that the per cent of net income to total equity of the subsidiary had exceeded that of the parent system in every year from 1949 through 1958.

Considering this situation, together with other pertinent rate of return considerations, the commission arrived at an allowable rate of return of 5.75 per cent. This return would enable the company to pay a dividend of 6.5 per cent on the equity portion of the statutory rate base at a payout ratio of about 65 per cent, after meeting operating expenses, depreciation charges, taxes, and interest.

"City Gate" Cost of Gas

The company did not base its claimed "city gate" cost of gas on the conventional procedure using operating costs and return on investment. It chose, rather, to predicate its claim on the rates prescribed by a Federal Power Commission tariff applicable to the company's sales to distributors for resale. Its method involved the use of estimates of a "designed" peak usage at a particular temperature, though there was no evidence to support the use of such temperature in conjunction with the Federal Power Commission rates. Moreover, the suggested method could result in a different "city gate" cost of gas to each of the more than 350 communities served by the company at retail.

The commission thought the "city gate" portion of the total cost of service to the retail customers should be assigned on a uniform basis. The computation recommended by the commission's accounting staff was adopted. The staff found the Mcf gas sales (adjusted for pressure and line loss) to the customers in the unincorporated area of Franklin county during the test period. The resultant figure was multiplied by the actual average cost of gas for 1957 to the company's wholesale customers who were billed at the Federal Power Commission tariff rates. The application of this method would result in the recovery of total costs of gas when applied uniformly and consistently throughout the company's retail operating areas, the commission indicated. *Re Ohio Fuel Gas Co. No. 27,897, January 22, 1960.*

No Additional Allowance above Fair Rate of Return for Tax Benefits of Percentage Depletion or Intangibles

THE Federal Power Commission has determined reserved issues relating to the treatment of tax deductions arising from liberalized depreciation, percentage depletion, and expensing of intangible well-drilling costs presented in a rate proceeding by United Fuel Gas Company under § 4 of the Natural Gas Act. Questions of rate form were disposed of in a prior order, and the rate level, except for the reserved issues here considered, was arrived at by stipulation approved by the commission. The rates finally determined in this proceeding apply to the period January 1, 1956, to July 13, 1957. Appropriate refunds for the period were ordered.

The determination of the reserved issues in this case followed the reasoning in the El Paso Natural Gas Company decision (29 PUR3d 469; 30 PUR3d 308). The commission ruled, as in the El Paso case, that the company should be permitted to retain the benefits of liberalized de-

preciation, percentage depletion, and expensing of intangible well-drilling costs. The purpose of § 167 of the Internal Revenue Code is to assist expansion of facilities and economic growth, said the commission. It is not to benefit consumers directly, although by the use of deferral accounting consumers are to be saved from injury. The benefits of percentage depletion and expensing of intangibles were granted to the industry to compensate for obvious hazards and to encourage the continued production of gas and oil. These latter benefits must be considered, however, in determining allowable return.

Stipulated Return Includes Allowances

In the El Paso case, the percentage depletion and intangible drilling tax provisions would provide a return of more than 8 per cent on well-mouth properties. Since this was in excess of the 6 per cent allowable return in that case, no additional return was considered necessary. In the instant United Fuel case, it was stipulated that a rate of return of 6¼ per cent would be fair. It appeared that 6¼ per cent was substantially more than the return available as a result of the tax provisions. The cost of service set forth in the stipulation included allowances for the failure to utilize percentage depletion and intangibles deductions. These allowances were eliminated.

In keeping with the El Paso case, no return allowance above the fair rate of return would be made.

The commission adopted a deduction for statutory depletion based on the test year alone. For the deduction for intangibles, the average of a five-year period was used. This was consistent with the stipulated cost of service which reflected test-year operations and test-year volumes of gas sold. An average of a five-year period, however, was used for the intangibles deduction since this item was not affected by the volume of gas sold but was a result of the number of wells drilled.

Dissents on Fundamentals

Commissioner Hussey dissented in part. He criticized the majority's opinion, which would allow as a rate of return on producing properties the normal rate of return on transmission properties, with no additional return for the incentives provided by the tax laws for producers of natural gas. He thought the majority's view was contrary to the congressional purpose.

Commissioner Connole also dissented. He disagreed with the proposition that a deferred tax reserve is necessary for a company to meet future income tax liability. He thought such a reserve would in fact become a permanent and involuntary contribution by the ratepayers to capital. The commissioner also disagreed with the majority's position on intangible well-drilling expense and statutory percentage depletion credit "because it characterizes the tax savings that will result from these provisions as compensation for return of capital when in point of fact the value of the capital that is to be returned has already been recaptured in the cost of service." He rejected the idea that these tax savings were compensation for incentive and for risks of doing business. Those business conditions, said Commissioner Connole, must be compensated for in the rate of return constitutionally required and should be measured in a more effective and realistic manner under the Natural Gas Act and the principles applicable to rate of return. *Re United Fuel Gas Co. Opinion No. 334, Docket Nos. G-2451, G-5475, January 22, 1960.*

Gas Plant Acquisition Adjustments and Unamortized Conversion Costs Excluded

THE Washington commission authorized Northwest Natural Gas Company to increase rates. It estimated that the new rates would yield a return of 5.99 per cent. This was not considered excessive. The old rates yielded a return 3.68 per cent. This was considered less than fair. The company recently acquired three operating properties from other public utilities at a price exceeding their depreciated original cost. Pursuant to the requirements of the Uniform System of Accounts the excess above depreciated original cost was maintained in Account 100.5, Utility Plant Acquisition Adjustment. The company proposed to amortize the dollar amount over a period of seventeen years by equal annual charges to operating expenses and to include the unamortized portion of that amount in a rate base until fully recovered over the 17-year period.

The company claimed that the acquisitions represented arm's-length transactions or a prudent investment, that they had been approved by the appropriate regulatory authorities, and that the acquisitions resulted in both direct and indirect benefits to consumers.

The commission held that the acquisition adjustment amounts were not properly includable in the rate base because it was not conclusively shown that commensurate benefits were derived by the customers from such acquisitions. It observed that commensurate benefits are benefits accruing to customers that are at least equal to the additional costs relating to the acquired properties.

The commission said that what may be a prudent investment or a good business practice from a management point of view cannot, of and within itself, bind the commission, which has a statutory duty to protect consumers. It also noted that since the company had made no valuation of the properties prior to acquisition, it was quite apparent that their current value did not dictate the purchase price. Nor for that matter did the excess amounts represent payments for tangible property.

As a matter of fact, some of the properties had been losing money. The commission concluded that the purchase price had been predicated not upon current earnings, but upon anticipated earnings and other factors focused within the "mind's eye" of management.

The commission pointed out that the alleged benefits to the consumers had not been shown in specific terms, nor reduced to dollar amounts so that they could be compared to the increase in the cost of service which would result from the increased investments. The properties had not been physically integrated into the company's system and no substantial, measurable economies in operation had been shown to have resulted from the acquisition.

According to the commission, the risk of not being able to include the acquisition adjustment costs in the rate base is one of the risks incident to business that is considered in determining a fair rate of return.

Abandoned Plant

As a result of conversion of the company's facilities from manufactured to natural gas, the company abandoned portions of its operating plant which had not been retired by normal depreciation. It proposed to amortize the abandoned property costs and other conversion costs over a 17-year period, and to include the unamor-

tized portion in the rate base. The commission did not oppose the amortization through operating expenses, but it did exclude the unamortized portion from the rate base.

The company pointed out that it had received regulatory authority to amortize the cost by equal annual charges to operating expenses. The commission ruled, however, that this authorization did not establish the treatment of that item for rate-making purposes.

In excluding the unamortized portion from the rate base, the commission said that the abandoned facilities were no longer used or useful in providing gas service to the public. It observed that one of the inherent risks of the company's business which is borne by investors in utility securities and which enters into the risk element allowed for in the rate of return is the risk of obsolescence of plant in advance of full recovery through depreciation. *Washington Pub. Service Commission v. Northwest Nat. Gas Co. Cause No. U-9117, February 11, 1960.*

Rate of Return to Gas Company Includes Allowance For Effect of Variable Winters

SOUTH ATLANTIC GAS COMPANY has obtained authority from the Georgia commission to raise rates, mainly because of an increase in the cost of purchased gas. In the event the supplying pipeline is later required to make refunds to South Atlantic, the full amount so received must, in turn, be refunded to the retail consumers.

The company reduced the test-year revenue figures to allow for a weather adjustment. It was shown that the test year was colder than normal in that the normal degree-day deficiency for Savannah was stated to be 2,486 degree days, while the actual degree-day deficiency experienced in the test year was 2,918 degree days, a deviation of some 17 per cent from normal. In arriving at a normal degree-day deficiency for Savannah, the company adopted a 70-degree base and computed "normal" by averaging the degree-day deficiencies experienced in each winter heating season for the ten-year period 1948 through 1958.

The commission considered that the use of a ten-year period to determine a normal winter condition is too short a span of years to be meaningful. Based on United States Weather Bureau data, the sharp weather deviations in Savannah appeared to be of such a magnitude as to cause the average degree-day deficiency of succeeding ten-year periods to vary by as much as 5 per cent when computed annually. The commission recognized the effect which this wide variation has on revenue, indicating that in the absence of an authoritative standard, it would continue its practice of allowing a rate of return sufficient to cover this hazard of the business.

Increased Cost of Gas

In determining the increased cost of purchased gas, South Atlantic computed the amount of the increase on the applicable volumes purchased during the test year, except for adjusting the demand units for the first six months of the period to the level of the demand charges sustained in the latter six months. The company explained that the demand charge in the latter half of the test period would continue in the future.

This computation overlooks two important considerations, the commission pointed out. First, rates are fixed on the basis of test-year operations, wherein ac-

tual conditions over the test year result in an averaging of the various revenue and expense effects as they may relate to customer growth and usage. The effect of the proposed adjustment was to perform an increased expense arising from normal customer growth without giving effect to the resulting revenue effect from customer growth in the test year.

Second, the level of the contract demand was the result of a specific request by the company for an increase in firm contract quantities to meet customer growth. The commission thought the proposed computation could be considered only with respect to a static nongrowing company. In the instant case, the increase in the cost of gas was required to be computed on the volumes and units of demand actually experienced in the test period.

Rate Base and Rate of Return

The commission did not set forth a rate base or rate of return in its written opinion. It gave "due consideration to the revenue requirements of a company of the size and operating characteristics of applicant," however, and allowed for operating expenses, depreciation, and taxes. A dollar amount of gross revenue increase was fixed as reasonable and adequate.

It was held that payments received from the state for the collection of sales taxes constitute a reimbursement for expenses incurred as a collection agent and should be credited against the operating expense accounts. Such payments are not nonutility income. *Re South Atlantic Gas Co. File No. 19440, Docket No. 1491-U, January 21, 1960.*

Electric Company Authorized to Construct Atomic Power Plant

THE California commission authorized Pacific Gas and Electric Company to construct and operate an atomic power plant, together with transmission lines and related facilities, at its Humboldt Bay power plant. It concluded that the new unit would give the company additional valuable experience in atomic power plants that would enable it to construct and operate future nuclear plants with improved efficiency. It was also found that the new plant would be needed when scheduled to help provide adequate capacity for future public demands for electric energy in the area.

Although the new unit would cost substantially more than a conventional power plant, the commission did not believe that the estimated unit cost of power from the new facilities would be unreasonable. The cost studies included an amount of $250,000 annual cost of additional insurance for liability and property damage. This amount included up to $60 million of insurance from private insurance groups and up to $500 million of liability protection through the Atomic Energy Commission.

Financing of the cost of the project was proposed from treasury funds presently on hand, cash available from internal sources, from short-term bank loans, and from the sale of such additional securities as the commission shall authorize for that purpose in the future. The commission concluded that the company had the financial means to construct the proposed new facility and that such construction would not be adverse to the public interest.

Fuel Waste

The evidence revealed that any liquid waste discharged to Humboldt bay would be held to a radioactive level below that prescribed in regulations of the Atomic

Energy Commission for ordinary drinking water. No liquid waste would be discharged to the ground. Low level radioactive solid waste would be stored in leakproof underground storage tanks or vaults. High level radioactive waste contained in the spent fuel would be stored in a pool of water until radioactivity diminished to a level low enough so that the spent fuel could be shipped in shielded shipping casks to the Atomic Energy Commission for reprocessing and disposal.

The company's plan provided for continuous monitoring at various locations to assure that the liquid waste entering Humboldt bay and the air released from the ventilating stack would be within safe limits.

Evidence indicated that in addition to the unit's being an inherently safe type of reactor which tends to shut itself down upon a potentially dangerous increase in its power, the proposed unit would contain safety devices which would shut down the reactor automatically under various specified conditions. Testimony also indicated that the proposed operation would in all respects and under all eventualities be safe for all elements of the public. *Re Pacific Gas & E. Co. Decision No. 59407, Application No. 41212, December 15, 1959.*

Replacement Plant for Imminent Use Included In Telephone Rate Base

THE South Dakota commission, pursuant to a remand decision by the state supreme court (30 PUR3d 289), has adjusted the rate base of Northwestern Bell Telephone Company to include replacement property under construction which would not be put into service until eighteen days after the end of the test period. The court had held that property intended for such imminent use should be included.

At the time of the proceeding before the commission, the property in question was carried as plant under construction and accumulated interest at 5 per cent. When put into service, it would be capitalized and placed in the plant accounts as plant in service. The commission pointed out that if the net excess of the new plant over the old plant had been added to the rate base as of the end of the test year, it would have resulted in a double return on this portion of the rate base. Furthermore, contrary to the company's argument that the replacement of plant at a higher cost did not provide for additional revenue, the commission was convinced that a portion of the investment in such replacements did provide for future revenue from planned expansion. It appeared that within two years after the end of the test year many additional telephones had been connected to the replacement equipment.

With the rate base adjustment for the replacement plant, the rate of return for intrastate operations would be temporarily reduced from 5.87 per cent to 5.76 per cent.

The commission found that the lower figure was still well within the limits of a reasonable return and that the presently authorized rates were adequate. Actually, using 1959 data, the commission noted that the level of earnings was 6.13 per cent for intrastate operations. *Re Northwestern Bell Teleph. Co. F-2510, January 30, 1960.*

Failure to Improve Service Held Immaterial In Telephone Rate Case

THE failure of a utility to comply with a commission order to improve service is not an adequate reason to deny a rate increase to which the utility is otherwise entitled, the Illinois supreme court ruled. The commission had granted Northwestern Bell Telephone Company a rate increase although the company had not complied with an order issued several years earlier to "deload" rural lines to not more than ten subscribers per line.

Compliance or noncompliance with a service improvement order is material to a subsequent rate inquiry only if there is any matter in connection with the improvement order that relates to the existing valuation of the company's property, so as to enable the commission to determine whether the proposed rates result in a fair return. The high court reversed a judgment which, as a matter of law, had overturned the commission rate order because the company had not complied with the prior service improvement order. Illinois statutes afford the commission an ample remedy against noncompliance with such an order, said the court. The function of a reviewing court is to see whether the administrative order infringes on any substantial rights of the parties. If the commission's findings are supported by the evidence and are not clearly against the manifest weight of the evidence, the order must be affirmed. *Village of Apple River et al. v. Illinois Commerce Commission et al. Docket No. 35319.*

Municipal Franchise Taxes Treated as Rate Surcharge

THE Florida commission has held that municipal franchise taxes should not be incorporated in the rates paid by a water company's customers. Such taxes, said the commission, should be shown separately as a surcharge and applied only to customers in municipalities imposing the tax. Moreover, such customers, in so far as possible and practicable, should be advised of the cost of the water and sewer service to them and of the amount of the tax they are required to pay. *Re Florida Water Service, Inc. Docket No. 5975-W, Order No. 2873, February 10, 1960.*

Denial of Alternate Route Authority Proper

THE Utah supreme court held that the commission's refusal to grant a motor carrier application for permission to use an alternate route was not arbitrary or capricious. The grant of the alternate authority requested, noted the court, would have enlarged a right incidentally included in a service which the commission had found was necessary over an entirely different route into one on which there had never been a finding of convenience and necessity for the particular communities sought to be served.

In view of the fact that the commission is the agency to which the legislature has delegated the power to determine whether a certificate should be issued and what authority should be granted therein, its interpretation of the meaning of the language should be given weight, said the court.

Under the history and circumstances

disclosed, the commission's interpretation was correct. Use of the words "with permission to use for convenience of travel only U. S. Highway 91" merely authorized such use for the movement of empty trucks or at times when because of snowdrifts or for other reasons the stipulated highways were impassable. *Utah Freightways, Inc. v. Utah Pub. Service Commission et al. 346 P2d 1079.*

Other Recent Rulings

Need for Rate Base Evidence. The New Jersey commission held that in a rate case it must require a rate base which is supported by sufficient detail to establish its accuracy and suitability, since a rate base is fundamental in any rate proceeding. *Re New Jersey & N. Y. R. Co. Docket No. 599-11677, February 8, 1960.*

First Rate Increase. The Massachusetts commission approved a general rate increase proposed by Weymouth Light & Power Company—its first since the commencement of operations in 1889—and found that the new rates would produce a reasonable rate of return of 6.47 per cent. *Re Weymouth Light & P. Co. DPU 13044, December 30, 1959.*

Transit Operating Ratio. The Massachusetts commission regarded as reasonable a transit operating ratio of 97.1 per cent, calculated to result from a proposed rate increase. *Re Eastern Massachusetts Street R. Co. DPU 13109, December 30, 1959.*

Gas Rate Suspension. The only time limitation on the suspension of rates under § 4(e) of the Natural Gas Act, the Federal Power Commission pointed out, is the prohibition, under the general policy and interpretations of the rules of practice and procedure, against suspension of a rate schedule after its effective date. *Re Pan American Petroleum Corp. et al. Docket No. G-19921, January 5, 1960.*

Telephone Return Allowance. The Ohio commission considered a return of 6.25 per cent on a reproduction cost rate base to be reasonable for a telephone company, whereas a return of 5.13 per cent was considered insufficient. *Re Shelby Teleph. Co. No. 28,216, January 21, 1960.*

Deviation in Exchange Returns. In authorizing a telephone rate increase, the Wisconsin commission regarded a deviation of 8 per cent in the individual rates of return for the company's 17 exchanges as justified only because of the interim nature of the rates being authorized pending completion of dial conversion, though the deviation was, nevertheless, considered within the zone of reasonableness. *Re North-West Teleph. Co. 2-U-5241, January 18, 1960.*

Telephone Maintenance Expense. The Wisconsin commission denied as excessive a claim of $4.81 per station per year for repair materials made by a small telephone company furnishing manual magneto service to about 500 customers, but an expense of $2 was allowed. *Re Cameron Farmers Teleph. Co. 2-U-5277, January 8, 1960.*

Municipal Plant Authority. When, by operation of a statute, a city acquired a city sanitary district and the authority to operate as a water public utility, it simul-

taneously acquired the right and the obligation to operate as a water public utility throughout the entire municipal area, the Wisconsin commission pointed out. *Re City of Brookfield, CA-3791, January 8, 1960.*

Municipal Electric Plant Return. In fixing increased rates for a municipal electric plant, the Wisconsin commission allowed a rate of return of 6 per cent on a net book value rate base. *Re City of Stoughton, 2-U-5145, January 8, 1960.*

Municipal Water and Sewer Rate of Return. The Wisconsin commission granted a municipal water and sewer plant a rate increase, allowing a rate of return of 5.5 per cent on a net book value rate base for each service. *Re City of Markesan, 2-U-5231, January 5, 1960.*

Emergency Rates. The California commission authorized a gas supply company to increase rates for resale service on an interim basis pending further investigation where the company's existing rates were yielding a return of only 3.77 per cent and the interim rates would yield a return of approximately 6.5 per cent. *Re Pacific Lighting Gas Supply Co. Decision No. 59429, Application No. 41277, December 21, 1959.*

Utility Status of Mutual Company. The California commission held that a mutual company which exercised the right of eminent domain to acquire operating property made an unequivocal act of dedication to public use by the exercise of that right and was, therefore, estopped to deny that it was a public utility. *Re Corona City Water Co. et al. Decision No. 59443, Application No. 38626, Case No. 6098, December 29, 1959.*

Scope of Power Project License. The Federal Power Commission granted the request of California Oregon Power Company to amend its 50-year license for the Big Bend development so as to include several existing unlicensed developments and a proposed new dam, where all of the developments would be operated as a unit. *Re California Oregon Power Co. Project No. 2082, January 13, 1960.*

Compromise in Gas Producer Rate Case. The Federal Power Commission accepted as being in the public interest a compromise settlement between the parties to a natural gas producer contract rate increase proceeding, in view of a settlement provision for rates appreciably lower than current contract prices in the production area and considering the proposed elimination of indefinite pricing provisions and the dedication of substantial additional gas reserves. *Re Union Oil Co. of California et al. Docket Nos. G-4331 et al. January 13, 1960.*

Pleading before Commission. The Federal Power Commission refused to accept for filing a memorandum in reply to an answer to a petition for reopening, pointing out that the commission's rules of practice and procedure do not provide for such a filing. *Re Panhandle Eastern Pipe Line Co. Docket No. G-2506, January 14, 1960.*

Rate Suspensions Vacated. Upon motion by natural gas producers, the Federal Power Commission vacated rate suspension orders and terminated the proceedings where it appeared that other filings of similar rates had been accepted without suspension. *Re Cities Service Production Co. et al. Docket Nos. G-9510 et al. January 26, 1960.*

Industrial Progress

Tampa Electric Budgets $23,500,000 for Construction This Year

TAMPA Electric Company has budgeted $23,500,000 for construction during the calendar year 1960, according to a statement by firm President William C. MacInnes.

Forty percent of these budgeted construction funds will be spent in completing the third unit at the company's coal-fired Gannon generating station, Mr. MacInnes said.

When the third unit goes on line at Gannon later this year, Tampa Electric's generating capability will be increased 175,000 kilowatts to a total of 735,000 kilowatts for the firm's three power plants, more than triple the utility's generating capability of 225,000 kilowatts in 1954.

Coleman Celebrates 60 Years With National Program Based On Famed Early-Day Gas-Lite

IN celebration of its 60th anniversary, The Coleman Company, Inc., is announcing a nationwide promotion to build heating and air conditioning sales for its dealers and create additional year-round load for gas utilities.

The essential feature of the program is the gift of a Coleman Gas-lite to purchasers of Coleman central furnaces, air conditioners, wall heaters and floor furnaces.

An extensive sales promotion program including mailing pieces, stuffers, give-away literature, radio and TV commercials, and consumer magazine advertising, has been prepared.

The new Coleman Gas-lite originated in the famous Coleman "Boulevard" lamp manufactured during the early years of the company. The "Boulevard Lamp" was discontinued about 1914, but the company went on to become the world's largest manufacturer of gas lamps and lanterns.

The modern version of the famed outdoor light is made in two styles. Model 1900-701 is a mantle lamp, complete with flow and shut-off valve for operation on piped, natural, manufactured and LP gases. It mounts either on a post or wall. Model 1900-700 is an open flame lamp that burns Coleman LP gas in disposable cartridges. It may be installed on a pole, post or wall bracket or used as a portable outdoor table light.

Initial reaction to the "Gas-lite" program has far exceeded expectations, according to Jess L. Moore, general manager of the Coleman Heating and Air Conditioning Division.

Cleveland Elec. Illum to Spend $190,000,000 in 5 Years

THE Cleveland Electric Illuminating Company recently announced a record five-year construction program expected to cost $190,000,000, with planned expenditures this year amounting to $27,000,000.

The estimated construction budget for 1960 through 1964, inclusive, would top the previous five-year record of $185 million for the years 1955 through 1959.

The forecast was made by Elmer L. Lindseth, president of The Illuminating Company.

Power plant additions continue to be a major construction expenditure for the company.

Modernization of the company's Lake Shore plant is due for completion by mid-year 1962 with the installation of a 250,000-kilowatt turbogenerator and associated equipment. It will cost $37 million. The new quarter-million-kilowatt unit will be the fourth of its size on the company's system.

Other major construction in the five-year period will be in transmission facilities and distribution equipment.

To provide expanded and improved electrical transmission and distribution service, 26 additional substations are planned and conversions to new 13,000-volt distribution lines will be effected.

$700,000,000 Program Planned by Commonwealth Edison

SHARP increases in the use of electricity by all major classes of customers enabled Commonwealth Edison Company in 1959 to set a new sales record of 21,310,195,000 kilowatt-hours, according to Willis Gale, chairman.

The total represented an over-all gain of nearly two billion kilowatt-hours, or 10.2 per cent, over 1958. Industrial sales increased 12.1 per cent, while residential and commercial gained 11 per cent and 9.3 per cent, respectively.

Construction expenditures in 1959 were $100,994,936. Net additions brought Commonwealth's gross utility plant at the end of the year to $1,957,066,490.

In extending its estimates for new construction through 1963, the utility plans expenditure of $700,000,000, a new four-year record total. The estimates, which are subject to review and modification, call for the following yearly totals: $160,000,000 in 1960; $165,000,000 in 1961; $175,000,000 in 1962; and $200,000,000 in 1963.

Pennsylvania Pwr. & Lt. Co. To Spend $35 Million in 1960

PENNSYLVANIA Power & Light Co. plans to spend thirty-five million dollars on construction this year and a total of $62 million through 1961.

Last year the company spent $37

(*Continued on page* 16)

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million for construction, more than half of which was for a 300,000 kilowatt generating station near Harrisburg.

About $14 million will be spent this year to bring the new steam-electric station close to completion. It is scheduled to go on service early in 1961. Other construction expenditures this year will include $12 million for power supply improvements and $9 million for new customer connections.

Construction expenditures through 1964 are estimated at $160 million, or an average of $32 million per year. Of this total, $55 million is planned for new generating capacity.

EEI Sparks Electrical Industry To Join All-Electric Kitchen Carnival

EDISON Electric Institute's All-Electric Kitchen Carnival promotion will spearhead a two-month industry-wide activity in selling major electric appliances for the home during March and April. Newspapers across the country, national consumer magazines and trade journals will help electric utilities, dealers, distributors and manufacturers to promote the All-Electric Kitchen Carnival campaign.

An 8-page, 4-color ad designed to rally the electrical industry will be used as a merchandiser by member companies of EEI, the trade association of investor-owned electric utilities, in stimulating carnivals in their communities.

As a part of the Institute's Live Better Electrically Program this promotion is designed to create and merchandise selling events nationally during the Kitchen Carnival months of March and April. Electric utilities locally will sponsor advertising and promotional campaigns in their service areas making use of newspaper linage.

A promotional kit for industry-wide participation includes newspaper ad ideas, radio scripts, reprint of the trade ad which appeared January 29 in Home Furnishings Daily, point-of-purchase material kit with colorful window banner or wall poster, pennants and appliance hang tags.

New Sky-Master Unit Permits Work on Energized Lines

AN aerial beam, insulated from ground to withstand in excess of 50,000 volts, has been added to the Sky-Master line of aerial equipment manufactured by McCabe-Powers Body Company, St. Louis. The new unit, designated the Series ABS Sky-Master, is designed to enable workmen to reach overhead areas quickly and to work on or near energized lines in complete safety.

Movement of the independently controlled beams and rotating support mast is hydraulically powered through the truck engine or an independent power source. Outer beam can be positioned at any point in a 270-degree arc, inner beam can be moved to any point in a 110-degree arc and mast can be turned continuously in either direction. Work basket can be spotted in an indefinite number of positions in all directions from the truck.

Descriptive literature and price information may be obtained from McCabe Powers Body Company, 5900 North Broadway, St. Louis 15, Missouri.

Rapid Gas Growth In Pacific Northwest Forecast

A surging growth in the 60's for the natural gas industry in the Pacific Northwest was predicted recently by Charles M. Sturkey, president of Washington Natural Gas Company of Seattle. Speaking before the San Francisco Society of Security Analysts, the utility president recited immense increases in natural gas sales in the past five years in his company's service area — anticipated further growth and gains ahead. Residential space heating customer gains alone increased from 7,900 in 1954 to 36,676 as of December 31, 1959.

"In 1955 total therm sales amounted to 26,940,000 therms—in 1959, 200,660,000 therms were sold in Washington Natural Gas Company's service area, an increase almost ten-fold the pre-natural gas figure," said Mr. Sturkey.

During the past five years the company has increased plant additions by $23,168,000, which more than doubled the book plant value of the past 81 years. In addition the company spent approximately $2.5 million converting to the distribution of natural gas.

Referring to the residential building boom last year in the Puget Sound area, Mr. Sturkey said, "Our company is getting most of the residential new construction heating business wherever our natural gas mains are available—95 per cent to 100 per cent of the homes in 144 resident tracts in our Puget Sound area which are being constructed by 288 builders."

inting out the tremendous potent- for natural gas expansion he said, n 1956 the gas company served ly 1 out of 8.25 homes, a 12.1 per nt saturation. In 1959 the gas com- ny serves 16.1 per cent, a 33 per nt gain. In the San Francisco Bay ea Pacific Gas & Electric Company s one customer for every 70 feet of ain. Washington Natural Gas Com- ny has one customer for every 169 et of main." He looks forward to e day when the company will at- in the national average of one cus- mer for every 60 feet of main. The mpany serves over 70,000 custo- rs in 28 cities with 2,050 miles of ain and is spending about $7,000,- 00 per year in new construction to xpand services.

Research for Market For Fly Ash

market may be developed for ountains of fly ash and wet-bottom iler slag whose removal now is an pense to power plants—especially ose of major utilities.

University of Illinois engineers are barking on a five-year project to t standards for using this material secondary road construction. Prof. eorge W. Hollon is in charge.

Four industrial sources have edged $13,200 a year for five years support the work. They are Na- nal Lime Association, Washington, C.; Pozzolan Products Co., and arblehead Lime Co., both of Chi- go; and Poz-O-Pac Company of merica, Philadelphia.

First three years will be devoted an aggregate, lime, fly-ash mixture which Prof. Hollon has been doing search for four years. This is now ing field tested on several second- y roads in Northern Illinois by ook and Lake County Highway De- artments.

A similar mixture has been used the East for 10 years.

Final two years of research are heduled for tests on use of lime to abilize roadways.

In both parts of the five-year oject, information will be sought develop a design method and set nstruction standards for low-cost condary roads using these materials.

G-E Introduces New Electro-Hydraulic Control System

A new electro-hydraulic control sys- n ten times faster and four times ore sensitive than present mechani- al controls was announced recently for General Electric's medium capacity steam turbine-generators.

A major breakthrough in the power generation industry, the new system is viewed by the company's medium steam turbine, generator and gear department as a giant step toward power systems automation.

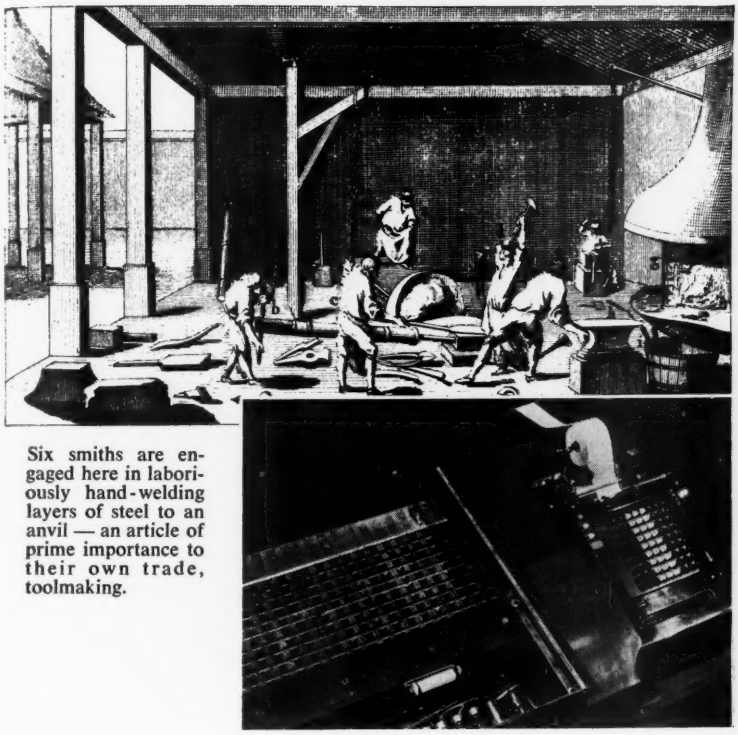
First application of the new form of controls will be on units for industrial manufacturing facilities requiring power generation and process steam.

Because the new system eliminates many parts, the company reports that installation is easier, operating costs are reduced and maintenance is facilitated. Faster and more sensitive frequency and process pressure control is attained.

The new steam turbine control system consists of a tachometer generator, pressure transducer and a solid state analog computer which directs hydraulic valve positioning devices.

(*Continued on page* 18)

many steps vs. "ONE"



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This new electro-hydraulic control system is the third major development announced this year for medium capacity steam turbine-generators, the others being a new hydrogen gas control system and a new static excitation system.

Jet Gas Turbine Driven Compressors Will Lower Costs at Pipeline Stations, Boyer Says

"MATERIALLY lower installation and maintenance costs are anticipated for pipeline transmission stations equipped with the new jet-driven gas turbine."

That was the keynote of a recent address by Mr. Ralph Boyer before the Fifth Annual ASME (American Society of Mechanical Engineers) Gas Turbine Conference.

Mr. Boyer is vice president in charge of engineering, The Cooper-Bessemer Corporation, Mount Vernon, Ohio. Under his direction Cooper-Bessemer designed and built the new gas turbine which represents the first industrial application of an aircraft jet engine.

First installation is expected this fall at the Clementsville, Kentucky pipeline station of Columbia Gulf Transmission Company.

Mr. Boyer pointed out that the revolutionary new unit must still be classified as experimental, and that a conclusive report cannot be made until the unit has been in operation for at least one year.

Preliminary data indicate, Mr. Boyer stated, that the jet driven turbine will provide efficiencies the same or higher than existing gas turbine compressor systems, without the use of bulky and costly regeneration equipment.

Combustion Engineering to Build Giant Unit for Commonwealth Edison

COMBUSTION Engineering has been awarded a contract by Commonwealth Edison Company, Chicago, for a steam generating unit to be built at Will county station near Lemont. This unit will serve a 510,000-kilowatt turbine generator and will be the first unit of this capacity to be purchased by a privately-owned utility company. Rising to the height of a 20-story building this giant will generate 3,900,000 pounds of steam per hour (equivalent to evaporating more than 8,000 gallons of water each minute) at a pressure of 2500 pounds per sq. in. and a temperature of 1000 degrees F. This team will produce half a million kilowatts of electric power for the Chicago area's rapidly expanding requirement for electricity.

Known as a C-E Controlled Circulation Boiler, this unit will be of the Radiant Reheat, Twin-Furnace, Pressure-Fired type. At full capacity, it will consume four and one half 50-ton carloads of coal per hour.

The coal will be prepared for firing by eight Combustion Engineering Bowl Mills, each capable of grinding 34 tons of coal per hour to a fineness comparable to that of talcum powder.

Since World War II Commonwealth Edison has purchased steam generating capacity for six different power plants equivalent to nearly 2,-500,000 kilowatts from Combustion Engineering.

Shipments from Combustion's Chattanooga and East Chicago Divisions to the plant site, five miles north of Joliet, Illinois is scheduled to start in July 1961.

Sargent & Lundy are consulting engineers for the installation which is scheduled to start commercial operation in 1963.

Middle South Utilities Plans To Spend $81,000,000 in 1960

MIDDLE South Utilities, Inc., plans to spend $81 million this year for new facilities, compared with $71 million in 1959, according to Edgar H. Dixon, president.

The company had 896,603 electric customers on its lines at the end of the year, a gain of 2.6% from the 874,028 customers at the close of 1958.

Average kilowatt hour sales per residential and rural customer gained 9.5 per cent to 2,895 from 2,643 in 1958.

Machines "Talk" to Each Other In Long Distance Telephone Calls

TWO IBM Tele-processing data machines—electronic devices that talk to one another in computer language via regular toll telephone calls were announced recently by International Business Machines Corporation.

The IBM 7701 Magnetic Tape Transmission Terminal sends business and scientific data at the rate of 150 characters or thirty words a second—fifteen times as fast as h man speech.

The IBM Data Transceiv equipped with a dial-up telepho feature can transmit ten eight column punched cards a minute.

In each case a twin device at t other end of the telephone cir u which may be across the cou t automatically recreates the origi magnetic tape or punched card da Both of these terminals are also c pable of operating over teleg ap lines.

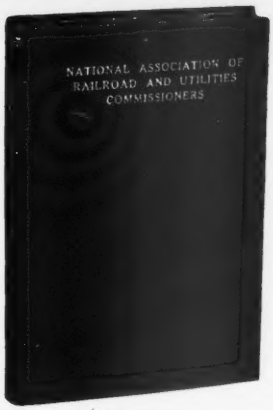
"These exciting developments i low cost IBM Tele-processing ne that no business installation of th Sixties need be more than a lon distance phone call away from hig speed electronic computation," sa Gilbert E. Jones, President of IBM Data Processing Division. "The provide the efficiency of centralize data processing to decentralized or ganizations whose volume does no justify leased telephone and tele graph lines."

Previously, for example, a larg company with centralized inventor and order processing might hav been required to mail or ship com puter input data from remote center to the central computer facility, caus ing a delay of days. Now, transac tion data recorded on magnetic tape may be telephoned or telegraphed swiftly.

Companies now handling thi problem with standard Data Trans ceivers and leased lines are expected to achieve greater flexibility and economy through the dial-up featur for the Data Transceiver.

In use, the operator in the send ing location places a data-filled tape reel on the 7701 and then dials the telephone number of the receiving location. Learning that data is to be sent, the receiving location operato verifies that the receiving terminal i prepared to record the transmitted data. As the operation begins, data passes at the speed of 150 character a second from the 7701, through a modulating subset provided by the telephone or telegraph company through the communication circuits to a demodulating subset at the other end, and into the receiving 7701. Message rates are the same as for voice conversations.

The procedure for transmitting standard punched card information via dial-up Data Transceiver equip ment is similar.



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NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS

THIS edition contains valuable material on the subject of regulation of rates and services of public utilities and transportation companies including the following:

Rates of Public Utilities and Transportation Agencies, Valuation, Railroad Problems, and Regulation of Public Utilities, Panel Discussion on the subject of "Inflation and Its Effect on Utility Regulation of Rates and Utility Financing," Addresses on "Legislation Affecting the Federal Regulatory Process" and "The Impact of the Supreme Court Decision in the Service Storage and Transfer Case." This volume contains a complete transcript of the addresses and committee reports of the 1959 Philadelphia meeting. The book is printed and bound in regular book cover.

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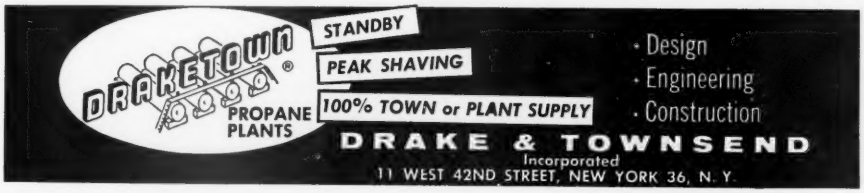

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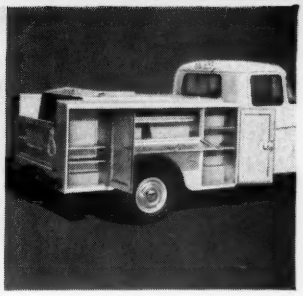

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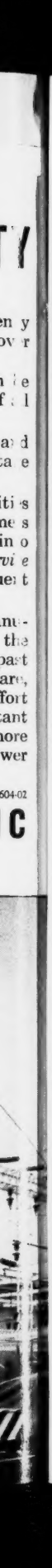
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